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ABSTRACT

Nearly 100 conference papers from the George Mason University annual conference on nontraditional and interdisciplinary studies are presented. The are grouped into 14 categories: (1) assessment of prior learning, which includes "Lifelong Learning: Integrating the Liberal Arts and Experience in Adult General Education" (J. Gary Bernhard) and "Partnerships in Assessing Prior Learning: A Model College Union Program" (Hugh B. Hammett); (2) evaluation outcomes, including "Strengthening Adult Learning through Program Review: An Institutional Case Study" (Robert L. Norris); (3) corporate/university linkages, which includes "Using Instructional Television To Bring the University to the Corporate World" (Joan De Rooy) and "The Joint Partnership Role of Continuing Education and Labor-Management in Corporate America" (Robert B. Leiter); (4) honors programs, including "Social Constructionist Approach to Curriculum as an Integrative Dialogue" (Tim McCracken); (5) interdisciplinary undergraduate programs, including "Creating an Interdisciplinary College Minor" (Joy Cantrell) and "Guidelines for Non-Traditional Interdisciplinary Curricula" (Donald B. Pribor); (6) issues in interdisciplinary graduate programs, including "An Individualized Master of Arts Program in Interdisciplinary Studies" (Alfred Cohn); (7) military programs, including "Bachelor Degrees for Soldiers (BDFS) Systems" (Clinton L. Anderson); (8) related issues in non-traditional education, including "Kinderskills: Unique Intergenerational and Interdisciplinary Program of Skill Instruction" (Linda M. Carson) and "Planned Inertia: The Struggles of Two Experimental Colleges" (Gi Gardner); (9) teaching the teachers: a response to the call for quality, including "Instructional Strategies for Non-Traditional Learners" (Walter V. Hanclosky) and "Support Mechanisms for Part-Time Faculty at the School of Visual Arts" (Mark Salmon); (10) teaching writing across the curriculum, including "The Role of Writing in Interdisciplinary Programs" (Katherine K. Gottschalk); (11) technology and non-traditional interdisciplinary programs, including "The Electronic Seminar: Distance Education by Computer Conferencing" (Lowell Roberts); (12) the ascent of older, new students and other issues in the non-traditional/interdisciplinary education of adults, including "Values, Decision-Making and Power: An Interdisciplinary Course for the Adult Learner" (Dineh Moghdam Davis); (13) undergraduate interdisciplinary courses, including "Biological and Literary Interpretations of the Nature of Man" (Frank P. Riga and Kenneth R. Barker); and (14) ways of knowing interdisciplinary issues in the liberal arts, including "Integrating Science and the Humanities for Career-Oriented Students" (Stephen Gottlieb and Robert Martinez). Each paper includes a bibliography. (KM)

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George Mason University

Proceedings from the Fifth Annual Conference on Non-Traditional and Interdisciplinary Programs

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NON-TRADITIONAL AND INTERDISCIPLINARY PROGRAMS

Selected Papers from the Fifth Annual National
Conference on Non-Traditional & Interdisciplinary Programs
held in Virginia Beach, Virginia
May 4-6, 1987
Sponsored by the Division of Continuing Education

Compiled by
Kathleen McGuinness

FOREWORD

This volume represents the work and wisdom of practitioners in interdisciplinary and nontraditional education. George Mason University is pleased to produce these Proceedings as part of its Fifth Annual National Conference on Nontraditional and Interdisciplinary Programs. We are also honored to be the host in bringing together educators to explore and shape new ways in which our rapidly expanding knowledge may be disseminated.

What today is called nontraditional and interdisciplinary is actually the oldest format for formal education. Students literally sat at the feet of mentors/scholars who lectured and discussed life and knowledge through a blend of many disciplines. This interaction, combined with experiential learning, is what this conference and these papers seek to rediscover and to promote.

I wish gratefully to acknowledge the work of Ms. Sally J. Reithlingshoefer, Assistant Director, Division of Continuing Education, and Ms. Kathleen G. McGuinness, Acting Director, Individualized Study Degree Programs, in making the conference and this collection of papers possible. The major contributors are the authors of these papers and you who share in this learning experience.

Sincerely,

Robert T. Hawkes, Jr.

Robert T. Hawkes, Jr.
Dean
Division of Continuing Education

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LINKAGE PROGRAMS: BRIDGING THE GAP BETWEEN INSTRUCTION AND STUDENT SERVICES THROUGH EXPERIENTIAL EDUCATION

James D. Ball
Peggy Walton

Much has been written of late regarding the structures and climate that should exist at institutions of higher learning to assure quality. Roueche and Baker, in their book Access And Excellence, outline a model for community colleges to use which addresses the issues of quality. They call upon the various components of the college to collaborate in providing student-services-oriented approach to implement the mission of the college. For most community colleges, a collaborative blending of service and instructional areas is a difficult challenge. At Howard Community College in Columbia, MD, a unique blending of these areas has occurred in the development of an experiential education program in which cooperative education, assessment of prior learning and job placement functions have been combined under the Linkage Programs office. The discussion below explains the rationale for and structure of the Linkage Programs office in terms of a model for delivering experiential learning at Howard Community College.

It its five year history at the college, cooperative education has been operated from both the Student Services Division and the Instructional Division. There are many reasons for the movement between divisions which are explainable in terms of pragmatic choices. The movement does reflect, however, the dichotomous difficulties many institutions face in delivering and administering programs. Clearly, at HCC cooperative education represents a program that has within its core an instructional facet and a service-related facet. It was placed in Student Services due to its service oriented nature, which involved related counseling, career development and job placement activities. It was later placed under instruction because of a desire to legitimatize the academic credibility of the program and link it more closely (philosophically and physically) to the academic programs that either required or made extended use of cooperative education.

It has flourished under the instructional program because of a commitment on the part of the college to the concept of experiential education. Theorists such as Kolb, Steinaker and Bell, and others describe learning as essentially experiential in nature. Students in the coop program establish learning objectives as part of their work experience. They are guided by the coop coordinator as well as a faculty advisor who help them derive practical meaning from their work experiences as well as gain an appreciation for the lifelong learning process.

The academic facet of the coop program is augmented by professionals who have experience and training in student services. Through their understanding of advising, career development and human relations, they are able to help students achieve the maximum benefit from experiential learning.

James D. Ball, Director Adult, Evening & Faculty Development Services
Peggy L. Walton, Ph.D., Coordinator, LINKAGE PROGRAMS, Howard County
Community College, Columbia, MD

In response to the needs of the large proportion of adult learners in the community, a program of assessment of prior learning was established at HCC by the coop coordinator, who saw the need to extend experiential concepts beyond the scope of cooperative education. The college supported this concept by placing the programs under the administration of the director of Adult, Evening and Faculty Development Services, who possesses a counseling, placement and career development background and who has held faculty rank.

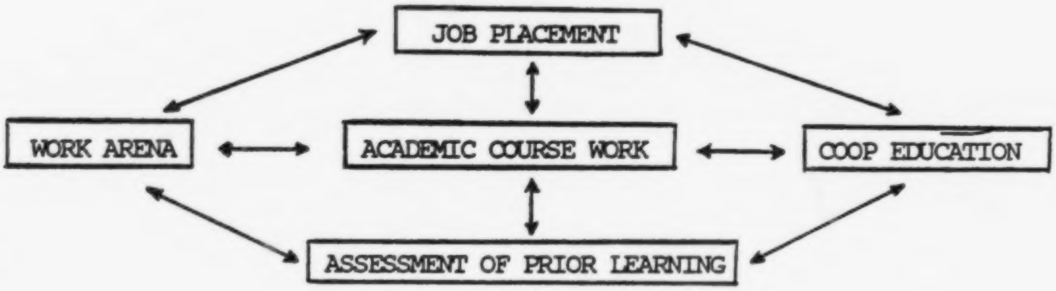
The credit for life experience concept helps students translate learning from a myriad of practical sources into college credits. It fosters the concept of lifelong learning as it teaches students how to learn from experience. It is exciting for students to understand how and why theoretical learning can enrich a "real" job. Conversely, it is equally beneficial for students to understand how "real" job experience can enrich classroom understanding.

The third area to be combined with the Linkage Programs is job placement. Job placement was a function carried out under the auspices of the Student Services division. As in most community colleges, it operated as a service to students but had little link to the educational mission of the college other than to provide some assistance to those seeking employment.

Under the instructional area, the positioning of job placement in the Linkage Programs rounds out the experiential education program. It provides total continuity between service and instruction with regard to learning and working. Job placement, then, is not viewed as an activity that occurs at the end of a student's academic stint, but instead is viewed in terms of the total learning process. Students who use job placement as well as other Linkage Program services are taught the value of what they are learning in relation to their career plans and their work experience. A program will be offered from the placement office in the next academic year which will be a formalized career-mentoring program. Students and county residents will be able to talk with people who are employed in occupations students are preparing for or wish to explore. Collaboration will occur between the career development service of the Counseling Center and the Linkage Program's office, to develop a referral system and conduct support services for people changing careers.

With the structure outlined above, the college can make the most of its internal resources while helping to meet the economic development needs of the community. The model shown below outlines the interrelationship between the components of experiential learning at HCC:

EXPERIENTIAL EDUCATION: A MODEL FOR LINKING WORKING AND LEARNING



The Linkage Programs serve students and the community by designing the various programs so that they are philosophically and organizationally joined with academic coursework. This arrangement adds to the college's credibility within the business community. Businesses gain access to prospective employees, educated in programs that emphasize application of the learning process to "real world" situations. They are also able to refer their employees to programs which cut the cost of education by awarding college credit for life experience, thereby streamlining the acquisition of a degree.

The college also gains credibility from students participating in the Linkage Programs because they are offered an added dimension in understanding the process of education. Students discover how they learn and how to understand experience in terms of the learning process. They then become more motivated to participate in the lifelong learning process.

> "That motivation frequently transfers back to the traditional classroom as students recognize the need for more theoretical background, as they draw inferences and conclusions from their experiences, or as they find reasons to improve their basic skills" (Experiential Education newsletter, March-April 1984).

The strength of the Linkage Program as it is presented in the model is the combination of academic and service facets which contribute to the student's motivation, career development and self development, as well as to the economic development needs of the community.

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LIFELONG LEARNING: INTEGRATING THE LIBERAL ARTS AND EXPERIENCE IN ADULT GENERAL EDUCATION

J. Gary Bernhard

For the last ten years the student populations of colleges and universities in the U.S. have been changing dramatically. An increasing number of adults are returning to school, and many institutions report a sharp rise in the average student age. Most colleges, suffering from a drop in traditional-age applicants, welcome adult students and often try to attract them with credit-for-prior-learning-options, individually designed degree programs, evening and weekend courses and vocational skills training. Unfortunately, these same institutions have made little or no effort to address what may be the single most important aspect of an older student's college experience--general, liberal arts education.

A liberal arts education has always focused on intellectual skills and on a body of knowledge not usually accessible to people through day-to-day activities. But there is an assumption behind most descriptions of what a good liberal arts education should be that often goes unnoticed. The liberal arts are supposed to prepare students to be in the world. In 1852 Cardinal Newman implied this preparatory function of the liberal arts when he described the educated man in The Idea of the University:

> A University training...gives a man a clear conscious view of his own opinions and judgements, a truth in development them, an eloquence in expressing them, and a force in urging them. It teaches him to see things as they are, to go right to the point, to disentangle a skein of thought, to detect what is sophistical, and to discard what is irrelevant. It prepares him to fill any post with credit, and to master any subject with facility. It shows him how to accomodate himself to others, how to influence them, how to come to an understanding with them, how to bear with them (in Harrold and Templeman, 1938:604).

J. Gray Bernhard
Coordinator, General Education
University Without Walls
University of Massachusetts-Amhurst

More than eighty years later, R.M. Hutchins, in *The Higher Learning in America* (1936), wrote that the primary function of higher education is to develop "correctness in thinking as a means to practical wisdom, that is, to intelligent action" (p. 68). The educational institution was to engage in this intellectual preparation of the young without attempting to provide experiences in which correctness in thinking could be exercised:

> Today as yesterday we may leave experience to other institutions and influences and emphasize in education the contribution that it is supremely fitted to make, the intellectual training of the young. The life they lead when they are out of our hands will give them experience enough. We cannot try to give it to them and at the same time perform the task that is ours and ours alone (p. 69).

If a liberal arts education is conceived of as a preparation two implications become apparent. The first is that those who are to be prepared will, *de facto*, be young and inexperienced. Thus all the revisions of general education requiements in the last ten years have focused on the knowledge and skill *young* people should have in order to prepare them for intelligent action in Real Life (c.f. Wilson, 1976; UMass, 1982; UMass, 1984).

The second implication of viewing the liberal arts as preparatory is clearly stated by Hutchins: students will acquire the experience that a liberal arts education is supposed to help order and interpret *after* they graduate, and in some place other than college. The assumption that students will make connections at some later date allows institutions of higher learning to emphasize the acquisition of information rather than the development of skill in general education. The implicit goal behind most general education requirements is to establish a pool of knowledge to which the student may refer throughout life.

It should be obvious that liberal arts programs which have such assumptions at their core will be less than adequate for older students. Adults enter college for a variety of reasons, one of which may surely be to prepare for a new line of work or a new way of viewing their lives. But these people also come to the institution with a wealth of experience in the world. They have already ordered and interpreted their experience in whatever ways they can, and, in fact, the process may very well have taken place in an *anti*-intellectual environment. Is it any wonder that adult college students often see the institution's general education requirements (the institution's way of making sure everyone has some exposure to the liberal arts) as meaningless, bureaucratic hoops to jump through as they pursue the enabling degree?

The unfortunate irony here is that older students are often in greater need than younger students of the skills, knowledge and attitudes of mind that characterize a good liberal arts education. Adults who come to college are very often people who are in the midst of serious life transitions (Aslanian, 1981). Divorce, a death in the family, the departure of children from the home, a crisis on the job, a change of career--these are the kinds of events that motivate many adults to return to school. And the intellectual skills of the liberal arts can be of great service to people who are trying to figure out how their lives have changed or will change. All the benefits of the liberal arts Newman mentions are still extraordinarily valuable to someone who is raising children, representing the community, making business decisions and working as a member of an organization. By the same token, knowing how humans have addressed (or failed to address) the challenges of life in the past, knowing what the antecendants of cultural institutions are, understanding something of the nature of the physical world and the diversity of human activity--in short, acquiring the information that a general education is supposed to convey--are of great value to one who has already been through a variety of experiences and may be looking for new models.

The problem is that when adults are forced to complete a general education program that focuses on the acquisition of information presented in lecture courses, they don't acquire the intellectual and expressive skills of the liberal arts. And because the information is designed as a prepartion for young people, adults are often frustrated by the lack of relevance such information has in their lives.

Consider a student in the University Without Walls program at the University of Massachusetts/Amherst, a woman in her mid-forties, a nurse with a husband and four children. She takes a course in department X because she is interested in the subject and the course satisfies a science requirement. On the first day of class she walks into a huge auditorium where 450 18 - 21-year-olds are gathered. Throughout the semester all information is presented in a lecture format--there is no discussion and little time for questions. In addition, the information is highly abstract and is organized in a way that will allow the instructor to cover it all in a semester rather than in a way that facilitates learning. The examinations are all multiple choice and true-false. Most of the young students are in the course because they have heard it is a science "gut," and they have little interest in either the lectures or the text. Many of them show up only for exams.

I don't think it's too strong to say that this woman is being cheated by the University. She was "lured" to college, one might say, by UWW's promise of an individualized degree program and the opportunity to receive credit for experiential learning. She knows she needs a bachelors degree to continue to grow in her field, and she is highly motivated, willing to work hard and make all the family and job adjustments that are necessary if she is going to succeed. Indeed, she will probably finish her degree and may acquire valuable knowledge in her field while at college. However, higher learning is failing her in the liberal arts.

Clearly liberal arts instruction must be reconceived for adults. In saying this I do not mean to imply that liberal arts education as it is usually presented in college is good for young people. Surely the structure and pedegogy of the course described above served the traditional students poorly too. But at least young students just out of high school understand that they are being prepared and expect education to be the acquisition of information for future use. Adults need a different approach. They have made generalizations on the basis of the experiences they have had, and these need to be held up against theoretical research. They often have written nothing longer or more formal than a letter for 10 or 15 years, and their math skills have atrophied. Most importantly, adults tend to have what might be called an "instrumental" view of education. They know they need a degree to apply for certain jobs. Going to college is the way to get the degree. College requirements are like other unpleasant chores of life--cleaning the house or mowing the lawn--; they just have to be done.

Another serious problem adults face when they begin college comes, paradoxically, from the "other side," from the very programs that have been created to help them. College programs for adults often project a kind of petulent critique of traditional institutions and so unconsciously undermine the value of the college experience for many adults. This problem is evident in the way the term "lifelong learning" is used in adult higher education.

Like the term "liberal arts," "lifelong learning" involves a number of assumptions. "Lifelong learners" are old, aren't they? And they're people who missed college the first time around? They're lifelong learners, they often feel, because they didn't "learn" when they were young. Of course this implication is not intended by those who use the term, but why are young students so rarely called "lifelong learners"?

More obviously, lifelong learning is associated primarily with personal development and "self-directed growth" (Gross, 1977: 16). In most descriptions of lifelong learning, acquiring the body of knowledge traditionally associated with the liberal arts is less important than self actualization. Needless to say, this focus can be confusing to an adult who encounters general education requirements and is, just then, having less trouble with self-actualization than with the reason for the requirements.

The main problem associated with most definitions of lifelong learning is that they often betray an anti-institutional bias that can only be frustrating to an adult who has made a big sacrifice to go to school. Here's a description from Lifelong Learning by Ronald Gross:

> Lifelong learning isn't consciously studying, or having to memorize something someone tells you to, or pursuing a certain set of subjects which schools consider important.
>
> If you are indeed a lifelong learner but haven't ever realized it, that's probably because society has "schooled you up,"...so that you equate learning only with what is taught in educational institutions. (Gross, 1977: 16 - 17).

Adults in college are always being called "lifelong learners," but they are rarely in a position to use Gross' description profitably. They are in the institution, after all. They have made an extraordinary commitment to complicate their lives and pressure their families for what the institution offers.

If we don't show them that they can get more than a degree while they're in college we are doing them a disservice. However, if we redefine lifelong learning as the integration of experiential and liberal arts learning, we can make some room for the liberal arts in our students' experience--and we can maintain a critique of college-as-bureaucracy without undermining the student's need for the college experience to have value.

Thus the first principle of a reconceived general education for experienced students is that it ought to make a case for the liberal arts, and teachers of adults should be people who are willing to demonstrate the value of the liberal arts in their own lives. But how may this be done? It is not enough for an occasional professor to demonstrate his or her own joy in the life of the mind. Adults who have never been in college before need to be part of a process specifically designed to help them integrate the experience they have already had with the new information and skill they will acquire in college.

The second principle of adult general education is that it must seek a dynamic balance among support for older students, respect for the skill and knowledge they have already acquired, and challenge of the assumptions they have built through experience.

Because adult students are often in transition, because they are often intimidated by the institution and are rusty or deficient in the skills most valued by the college culture, they usually need a great deal of support when they return to school. This support can come in a variety of ways. As anyone who has been an older student knowls, having a personal academic adviser who can serve as interpreter of foreign procedures and language is extremely important. At the same time, being in class with other students who are in the same situation can make all the difference to someone who is not sure of his or her abilities. Support for the adult student can also come in the form of course scheduling practices. Evening and weekend offerings demonstrate sensitivity to the life responsibilities adults must continue to fulfill as they pursue their education.

But support for non-traditional adult students can actually be counterproductive if it is patronizing. Adults are especially quick to see through support that assumes their inability and treats them like children. Those who would help adults develop the skills and knowledge of lifelong learning must have sincere respect for the skill and knowledge these students have already acquired through experience. Credit-for-prior-learning processes and individualized degree programs are only the most obvious ways in which respect for learning from experience may be demonstrated. Esteem for adult experience may also be shown in the way general education courses are designed and taught.

In addition to support and respect adult students in higher education need challenge. They need to be pushed as far as they can go by people who have earned their respect. As mentioned above, the generalizations older students have made based on personal experience and cultural custom should be examined and tested by comparisons with research and theoretical models. Respect for the learning a student has done through experience cannot override the demand for a clear expression of that learning to others and an analysis of how that learning fits with other knowledge and experience.

Integrating support, respect and challenge--in the institution, in the classroom and in the advising relationship--is a tall order, to be sure. But it is only through this integration that the integration of liberal arts and experience can be facilitated.

The UWW Adult General Education Program

In an effort to make a lifelong general education accessible to adult students, the University Without Walls at UMass/Amherst has recently developed some alternatives to the University general education requirements. I would like to describe the overall program briefly then review with you the introductory course in a series of four "gateway courses" designed specifically for adult learners.

Students in our program satisfy the University of Massachusetts General Education Requirements through a combination of specially designed "gateway courses", traditional university coursework, testing, independent study, and demonstrations of prior, non-formal learning in general education areas (when appropriate).

An important characteristic of the UWW general education program is that we assumpe that different kinds of learning experiences go to make up a general education. Some of these experiences may have occurred long before the student came to school, some are completely new; some are actually syntheses of former experience and new theoretical learning, or reflections on the past. The principle we are working from here is that general education for adults must provide as much opportunity for manifestation as for preparation. The heart of the lifelong learning perspective proposed here is the process of reviewing and demonstrating the learning one has done through experience in the context of the skills and knowledge of the liberal arts. These demonstrations may take the form of testing or the preparation of prior learning portfolios. Students may also pursue general education independently through this program, because they will rarely find the course they want at the time they can take it.

The most significant feature of the UWW General Education program is the "Gateway" course, and in these courses--designed especially for older, experienced students--support, respect and challenge can come together. As we work with university faculty to develop these courses, we hope that they will have the following characteristics in common:

1. The students in them are all adults starting out in the university. Thus they can (and do) support one another. This peer support is especially important in the first semester.

2. The seminars are relatively small (15 - 25

students), thus enabling discussion.

3. The courses are structured in such a way that the experience of the students becomes part of the content during the semester.

4. The courses are built around skill development, introductions to the methodologies characteristic of a particular field, and critical issues in that field rather than a body of content. Thus students acquire a general context within which to choose future courses or design independent studies.

5. Papers, discussions and written exams, rather than so-called "objective" tests, form the basis for evaluation of student achievement. Students are able to show their understanding of an idea through class discussion or in written work they develop and organize themselves.

6. Intensive critiques of student writing and required rewriting are built into the course so that students may more consciously develop their writing skills during the semester.

7. The courses are all designed with the understanding that the students will exhibit many different learning styles. Thus each seminar attempts to find a balance between formal structure and student initiative, between presentations by the instructor and free-wheeling discussion, between verbal and non-verbal activities, between personal experience and theoretical models.

8. And finally, the questions that are assumed in most general education courses are addressed directly in these seminars: Why is writing important? Why should someone learn math? What is critical reading? Why bother about the past? What should a good general education consist of? What are the advantages and the limitations of the ways of knowing and expressing valued by the academy?

Let me take a few moments to describe "Frameworks for Understanding," the first gateway course in the series:

Course Outline
Questions Raised/Propositions Explored

I. The skills of higher learning

A. Individualized Learning Styles. The major goals of this section are to help students start thinking about the way in which they learn most successfully and to demonstrate the diversity of learning styles.

B. Critical Reading. The characteristics of critical reading, the value of critical reading in "real life." In-class exercises encourage students to

1. identify an author's main point(s)
2. identify an author's assumptions
3. identify their own assumptions as readers
4. evaluate the quality and validity of a piece of writing

The writing analyzed in class is chosen for the challenge it offers to student's assumptions.

C. Effective Writing.

1. what makes writing effective?
2. what are the obstacles to writing effectively?
3. what is the value of effective writing outside institutions of formal education?
4. what does it mean to "find your voice" as a writer?

Reading: George Orwell, "Politics and the English Language"; Paule Marshall, "From the Poets in the Kitchen." Orwell's essay is a classic indictment of careless use of language. Marshall's article is a beautifully written and well organized little piece that demonstrates the value of her black Barbadian heritage to her development as a writer.

II. The Social Sciences

A. What are the social sciences? What do they study?
B. Culture as a framework for understanding. Reading: Edward Hall, Beyond Culture
    1. much of our approach to acquiring information and interpreting experience is determined by the culture in which we have been raised
    2. what we think of as reality may often be culturally conditioned attitudes towards time, structure, rightness, fittingness, fairness, etc.

3. becoming aware of the origin of one's own attitudes and assumptions encourages tolerance for the attitudes and assumptions of others.
4. the cultural feast. About midway through the semester students and instructor bring dishes to a meal during which all talk about their cultural heritage. Some of the questions we have asked students to address in this course are
    a. What were the roles for men and women in your heritage and how were they projected?
    b. What was the attitude towards formal education among your people?
    c. What kinds of stories were told in your culture and who told them?

C. Gender as a framework for understanding.
1. What does it mean to have a "feminist perspective"? How is a feminist perspective affected by race and class issues? How does such a view affect the way one orders information and interprets experience?
2. How is a perspective based on gender different from a perspective based on culture, race or class? How may these work together? Reading: Patricia Meyers Spacks, "The Difference It Makes"; Marjorie Shostak, "Life in the Bush"

D. Methodology in the Social Sciences.
1. Participant Observer (Shostak, "Life in the Bush"
2. Quantitative/Empirical (Lee, "An Inventory of Plant Resources
3. Mathematical Modeling (Kuttner, "The Poverty of Economics")

Shostak and Lee study the !Kung, a hunting and gathering people, from very different perspectives. Kuttner evaluates the effectivesness of mathematical modeling in economics.

III. The Natural Sciences and Math
A. What are the physical sciences? The biological sciences?
B. What is the "scientific method"? What are the advantages of such an approach to understanding? What are the limitations? What is the realtionship between a "scientific" way of knowing and an appreciation for cultural diversity and the diversity of individual learning styles?
C. What is the relationship between science and technology?

D. What does it mean to think "mathematically" about a problem? Why are so many people afraid of math? Why is it important to understand something about quantitative reasoning?

IV. Art and Literature. The Humanities.
   A. What are the "Humanities"?
   B. Of what value is the study of art, music, literature, history, philosophy?
   C. How do artists make decisions about what is true, right, balanced, accurate?
   D. How is literature different from other kinds of writing? Whats can be conveyed through literature that cannot be conveyed in other writing? Reading: Desmond O'Grady, "Sterner's Double Vision"; David Bradley, The Chaneysville Incident. O'Grady's short story is about an American anthropologist in New Guinea and demonstrates, through literature, some of the most important themes of the course. Sterner's unwillingness to appreciate the differences of culture he encounters translates into a series of missed opportunities for learning and understanding. The Chaneysville Incident is about a black man's search for his history and identity. The protagonist, John Washington, is an historian who approaches the past objectively because he mistrusts the intuitive ways of knowing predominant in his own past. Chaneysville is a wonderful book to use as the last reading in this course because the issues of critical thinking and diversity are explored in detail. In addition, the book highlights the common conflicts between different ways of knowing and suggests ways in which conflict can become collaboration.

V. What Should A College Education Be?

UWW's Adult General Education alternative has just begun, and it will be some time before sufficient data are available for a full evaluation of the program. Nevertheless, I believe thatinsofar as the curriculum, pedagogy, advising processes, and administrative processes acknowledge the special characteristics of adult learners and at the same time acknowledge the importance and value of the liberal arts for these students the program will be valuable.

A final word on the relationship between adult general education and general education for younger students: If lifelong learning is the integration of liberal arts skills and knowledge and an appreciation for what can only be

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learned from experience, it is for everyone. We have been able to get away with promoting something less than lifelong learning in our work with young students because we (and they) assume that they are being prepared for the future. The problems of general education that have developed with such a view are etched in high relief when we require adults to go through the same "preparation" in order to satisfy general education requirements at a college or university. But when we work to develop a general education that is meaningful for adults--one that supports their return to formal education, respects their prior achievements and challenges them to question what they have learned--we discover ways of facilitating lifelong learning that can be beneficial to all students.

A MODEL FOR ASSESSING EXPERIENTIAL LEARNING

Anna L. Bolling

A successful assessment model must first recognize the inherent and largely irrational fear that adults have in returning to the academic arena. To alleviate this fear, colleges and universities need to design a model that begins with a reentry process that is supportive with the assistance of an academic advisor, balanced between experiential and theoretical learning, and structured to attend to the special needs of the adult as well as the academic institution. Such a model requires careful planning and application of adult learning theory.

Reentry Seminars

Reentry seminars reorient the adult to research methodology, academic writing and goal exploration. These seminars have a more positive effect on the adult when they are offered for academic credit because the short duration of the seminars allows for a much needed early sense of success. The first part of the seminars should be designed to inform the adults of specific services available on campus to them, to acquaint them with adult learning theory, and to provide them with a research project that incorporates hands-on experience with research methodology, academic writing requirements, oral presentations and group dynamics.

Other parts of the seminars should introduce them to degree requirements of the institution and encourage them to focus on their future goals by exploring different areas of interest. Another component is the identification of methods, such as those suggested by the Council for Adult and Experiential Learning (CAEL), for adults to recognize and validate their prior learning that can be assessed for academic credit. By using standard methods, adults have a greater faith in the process and the integrity of the institution.

Assessment Process

The documentation stage of the assessment process is facilitated best by an academic advisor who is heavily interactive with the reentering adult students. The advisor guides the students to recognize prior learning that is academically creditable, is appropriate for their future educational goals and career plans, and is publicly verifiable.

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The advisor assists the students in recognizing different assessment modes, such as portfolio, interview and work products, and in preparing the documentation for presentation to an academic assessor. An important part of this stage includes standardized forms, checklists and standardized packaging formats.

The next stage in the assessment process is the measurement stage. As there are guidelines for adult students in preparing documentation for assessment, there are guidelines for assessors in evaluating the documentation. Assessors need to be trained to become expert evaluators, and the process is less susceptible to question if the assessors are compensated by the number of hours devoted to the task rather than by the number of credit hours awarded. In addition, it is helpful if assessors develop criterion-referenced standards to ensure consistent evaluation among assessors and have access to an extensive and current library of college and university catalogues.

During this entire process, reliability studies should be conducted to validate the assessment process and evaluate the cost benefit to the institution. Internal monitoring is necessary to maintain standard measurement techniques. Periodically, reliability studies should examine evaluation results among assessors and identify those assessors who may need retraining. These studies should include, but are not limited to, having more than one assessor independently assess the same documentation and then analyze the results for any differences in the evaluation. Random verification of items submitted for evaluation should be conducted, and all of these studies should be sensitive to the possibility of hidden sex or racial bias in the evaluation. In addition, follow-up studies should be conducted to ascertain the academic success of adult students who have received credit by assessment.

Administrative Practices

A consistent review by an administrator is necessary to guarantee a quality control over the entire process. Administrative policies and procedures must be in place to ensure the orderly functioning of an institution awarding credit by assessment of prior learning. There must be standard admission policies, standard seminar syllabi, standard fees that charge less for credit awarded through assessment than the tuition charged for campus courses, and standardized transcripting for credit awarded through assessment. Furthermore, the students need to be protected by grievance procedures which would allow them to challenge an assessment and request a reassessment by another assessor. For the integrity of the institution, an academic dishonesty policy needs to also be included in the administrative process, and the students must be informed of the policy and its ramifications as they are preparing their documentation for assessment.

Finally, the success of an assessment model can be determined by examining the services to adult students in terms of the costs of those services and the administrative structure necessary to sustain those services. Faculty members serve as instructors, advisors and assessors. The costs to the institution must be balanced to accommodate the diverse needs of the adult community. Adult students need to have a clear understanding of the costs of the services they receive and to accept those costs as a reasonable investment in their future. Particularly, the costs of assessment services need to be viewed by adult students as fair in order to quickly move them closer to completion of their goals and yet provide a sound learning foundation which can boost the self-esteem to alleviate the fears of adult students.

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THE JUNIOR YEAR PORTFOLIO OF PRIOR LEARNING FOR RN STUDENTS IN A BACCALAUREATE NURSING PROGRAM

Sandra Bunkers and Carolyn Geyer

Our initial meeting with Maryanne was almost predictable. For ten years, she had been assistant head nurse of the critical care unit at a local hospital, but she had just received the message from her professional associations and her employer that she must finish a baccalaureate degree in nursing--that her three-year diploma RN degree from the very hospital where she worked would not be sufficient. If she intended to assume a leadership role in her unit, she must complete a degree. She met our welcomes with a look of frustration and resentment in her eyes.

Had this initial meeting to discuss educational plans happened five years ago at our college, the resentful feelings might have continued as Maryanne faced a curriculum designed for a full-time, generic nursing student with time enough to finish a degree in an uninterrupted four-year program of study. But in recent years, the Nursing Department has worked especially hard to come to grips with the increasing problem of access and flexibility for RNs caught in the dilemma of working while meeting changing professional demands of a career which remains essential to modern society.

Maryanne listened as we explained our recent curriculum adjustments and accompanying educational philosophy for RNs entering our college with extensive experience in their field and the need to study while continuing their busy lives. Maryanne became more receptive that late July afternoon. A few years later, now in her senior year of our baccalaureate program, she has become a leader in her work setting, initiating new programs and developing a hospital-wide inservice on the emotional needs of long-term, critically ill patients and families. She is also an excellent student, open to new learning about nursing.

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How did we get from there to here, to a restructuring of our curriculum to assist RNs? The purpose of our presentation is to explain that important transition. A central issue of this transformation involves our commitment to the idea that RNs must be given some recognition for their knowledge and expertise acquired from work experience. After doing a needs assessment and developing a model to make our nursing program more accessible to RNs, we restructured the junior year to consist of a bridge course and a portfolio of prior learning for 19 semester hours. The senior year was also restructured to accommodate an RN's need to continue working.

Historical Development of the Model Curriculum Plan for Registered Nurse Students

The primary goal of the plan was to make Augustana's nursing program more accessible to RNs desiring a baccalaureate degree in nursing. There were several basic assumptions essential to the development of this model:

1. There are a large number of RNs who desire to pursue a baccalaureate degree (DuGas, 1985; Borgman and Ostrow, 1981).

2. RNs who seek a degree with a nursing major at Augustana College will be expected to obtain a valid liberal arts education.

3. RN students will be expected to attain the same terminal objectives at completion of the major as the generic students do.

4. Flexibity will be sought in recognizing clinical experience and expertise of individual RNs.

With these assumptions in mind, the Nursing Department began a planning process which included the following five steps: 1) data collection, 2) data analysis, 3) option identification, 4) formation of a plan, and 5) development of methods of implementation.

In the first step, data were collected from resource people through interviews of LPNs and RNs in the community, RN students who had come through our program for a degree, and representatives of nursing management from the three hospitals in the community. The director of the credit for prior learning program (CEEL) was also consulted.

The first challenge was to recruit the RNs into our program, given their skepticism and resentment (Parlocha and Hiraki, 1982;

Hillsmith, 1978). The Nursing Department held information sessions and aimed other marketing devices at RNs in the community. Three major concerns surfaced in the data analysis when attempting to match needs of the RNs with the program our college was presently providing:

1. Development of formal means of updating RNs in knowledge and skills--Besides health assessment education, nursing process, communication skills, and assertiveness education, these RNs needed methods for dealing with threats to self-esteem and for providing motivation to learn and change.

2. Recognition for acquired knowledge and expertise--The plan called for a means of measuring clinical knowledge and theory competence at the entry level.

3. Consistent progress in academic classes while working full-time and maintaining other roles--The corresponding need to be met included flexibility in scheduling part-time options and in academic support.

The Model Curriculum Including the Junior Year Portfolio

These three concerns led to major changes in the nursing curriculum to accommodate the needs of RNs. The policies which were developed were designed to assist the progression of RNs through the nursing curriculum at Augustana. This did not entail a separate program, but a new model within the existing program. The changes were adopted by the entire faculty as necessary and desirable.

The Model Curriculum for Registered Nurse Students began with a bridge course entitled "Change: A Professional Challenge." This course was designed to address the first major concern about updating knowledge and skills of returning RNs. The course facilitates the transition of the RN student to baccalaureate nursing and provides a structure and direction for the RN to begin portfolio development. The major theme of the course is change, with theory addressing intrapersonal and interpersonal communication, nursing process, health assessment, leadership, and professionalism.

The bridge course emphasized the nursing process, a concept new to some RNs who had attended diploma nursing schools five or more years earlier. Although they were technically quite sophisticated in nursing procedures, they lacked the academic knowledge and the philosophy of the nursing process necessary for the baccalaureate nurse. Accordingly, they now began to focus upon wellness as much as disease, and more upon the psychosocial needs of the patient and family rather than just upon technical procedures. In short, this bridge course initiated for them new ways of knowing what nursing is today.

During the bridge course, the RN is taught how to write the portfolio of prior learning. This portfolio addresses the second major concern which emerged from the needs assessment, a need to give recognition to the RN for acquired knowledge and expertise. The portfolio follows recommendations from CAEL (Council for Adult and Experiential Learning) in form and in documenting and articulating learning and not simply experience.

Through this portfolio, the RN describes and documents that she/he has attained the year-end objectives for the junior year in nursing. The central theme of the portfolio is the nursing process, and the RN is required both to describe and to present evidence of this problem-solving process in the same form and with the same substance expected of generic students.

The objective of the portfolio is to assess the nurse's prior learning from the work setting, previous workshops, inservice programs in hospitals or health care agencies, and memberships and leadership positions in professional organizations. The RN student presents the portfolio to the Nursing Department and requests credit for her knowledge and experience, with each portfolio equivalent to six nursing courses for a total of 19 semester hours.

The portfolio includes separate sections for an autobiography and resume, a statement of the student's philosophy of nursing, process recordings (interaction analysis), complete nursing care plans for a designated number of patients, and documentation of the RN's proficiency from supervisors in the work setting and other methods, such as certificates of workshops attended or a bibliography of articles consulted.

To address the third major concern, the Nursing Department restructured the senior year from an integrated ten credit hour course and one credit seminar to four separate interrelated nursing courses, which are sequenced for a part-time study option. Thus, part-time study in the senior year has become an option available to RNs that had not been available before. An additional benefit is an option to do a portion of the clinical requirement of the courses in their work setting. For example, an RN staff nurse in a renal dialysis unit is starting a support group of dialysis patients in her work setting, a project for which she will earn 20 hours of clinical credit.

The first three nursing portfolios to be turned into the office of the Academic Dean marked an historic occasion. These RNs, with rich experience and sincere motivation to be leaders in their fields, had successfully completed the junior year in approximately four months. They had taken the bridge course during the summer session and then written their portfolios immediately after that course. Now into our second year of this major innovation for RNs, we believe that the benefits from this new model are important to us all, having taught faculty and students alike the wisdom of evaluating where one has been, where one is, and where one is going in any professional or educational venture.

The clearly beneficial results of assessing competency in this way have allowed students to become better learners, stronger nurses, and junior colleagues to their professors. Nursing faculty have seen six definite strengths emerge.

The first is that the RN receives a more solid understanding of the nursing process than she/he had before taking the bridge course and writing a portfolio. In the bridge course, students learn what the nursing process is, its terminology, how it applies to clients, and how to use this information in the portfolio. The point is not that they don't know nursing, but that they learn to know in a new way--a way which focuses upon wellness and the coping of family and patient with health and illness problems, not just upon disease and technical procedure.

The second outcome involves the process RNs must go through to develop their philosophy of nursing, which must be written as part of the portfolio. Thinking and writing about one's career and its values have proven to be enlightening experiences for RNs caught up in day-to-day activities with little time for reflection about the philosophical implications of what they are doing.

The third outcome is the self-awareness which comes when RNs look at their communication style with clients and analyze its effectiveness. Miller and Wolff (1981) underscore that one important way to strengthen learning for adults is through the process of self-awareness because it forces individuals to examine their value systems and motivations. RNs in our program examine their communication styles both in theory and in practice in the bridge course and through the portfolio.

The fourth outcome is that the portfolio enables them to make role transitions needed for professional nursing and allows nurses to develop the psychological safety necessary for progress to occur (McGrath and Bacon, 1979). Defensive attitudes vanish. Since the Nursing Department has developed a legitimate method of sending the message that the work and life experiences of RNs are valuable, defensiveness has dissolved. Students no longer feel compelled to challenge the professor.

RNs have become junior colleagues as nursing educators work with them to draw them into the new philosophy of baccalaureate nursing. In the past, when nursing professors challenged their experience or knowledge by not allowing them any credit for it, RNs felt they must respond in kind. The bridge course and the portfolio have eliminated such a compulsion.

Finally, and perhaps most importantly, these RNs gain reinforcement about the value of their work. For they see clearly and at first hand that nursing is a meaningful profession. The academic setting accepts their work as valuable and critical to society by formally recognizing it, and their new knowledge allows them to discover new merit in what they are doing. Not only is a supervisor in a clinic or hospital evaluating their activities, but they themselves and their professors are also measuring their work in a much broader context.

The whole process of the junior year portfolio has readied these RNs for enrichment by new knowledge to be gained during the senior year and for application of it in their work setting. Maryanne, our original example, had worked five years in her current position, but only after she witnessed new approaches to nursing, through her bridge course and the portfolio, did she recognize needs she hadn't considered before. Thus were conceived the hospital-wide inservice workshops for long-term critically ill patients and their families. Another RN, a part-time instructor in an associate degree program at a nearby state university, is examining a hospice program and beginning to learn more about the needs of families when a member has terminal cancer. And a third RN student, head nurse in a maternity unit, is developing an inservice for her unit on how to deal with loss and grief. She states, "My staff grieve as well as my patients. I now feel more prepared to deal with my staff's issues than I did before."

Our program has come very far since 1967, when, although we had a test-out in the junior year, each RN had to take every exam for the six courses offered during that year and then had to spend full time during the senior year to finish the baccalaureate degree. That has changed dramatically, and our nursing program is now much stronger as a consequence of its recognition of the special needs of RNs, who have work and other commitments to combine with their pursuit of a baccalaureate degree.

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THE INTRODUCTION OF PRIOR LEARNING ASSESSMENT IN A TRADITIONAL LIBERAL ARTS INSTITUTION

Donald B. Clardy

The innovative practice of prior learning assessment is being employed in many colleges and universities across the United States in 1987. However, many traditional liberal arts colleges may be unfamiliar with this practice or have a knowledge which is quite limited in scope. Traditional modes of thinking may restrict learning to lecture, discussion, labs, and selected innovative classroom activities. More than a few administrators, faculty, and accrediting agencies may reject the premise that college-level learning could actually take place outside the traditional college classroom. This negative attitude was encountered at Tusculum College as institutional representatives explored the potential for program expansion into adult education to include assessment of experiential learning.

During an extended planning period, Tusculum College laid the foundation for what has grown into a very successful on-campus Assessment Center. The introduction of prior learning assessment at the undergraduate level required that consideration be given to a number of key questions:

1. Is prior learning assessment consistent with the institution's mission?
2. How could faculty be involved positively in prior learning assessment?
3. How could assessment of prior learning be integrated into the curriculum?
4. What organizational structure would best accommodate prior learning assessment?
5. What is the financial impact of creating an administrative unit for the assessment of prior learning?
6. What types of quality control measures should be structured into the assessment of prior learning?

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Prior Learning Assessment and the College Mission

A review of the Tusculum College mission statement provided very little insight into the acceptance or rejection factor of prior learning credit award potential. Like most mission statements, this one was structured not only to adhere to the fundamental components of traditional education but also to recognize and incorporate the innovative practices in higher education. A more realistic approach was needed; therefore, a review was made concerning college policies, procedures, and practices that would be related to prior learning assessment or experiential education. Several significant findings were judged critical to the potential for introduction of the prior learning assessment concept.

1. The college did have in place a credit for experiential learning procedure outlined in the catalog.
2. The college had established procedures and guidelines which allowed credit for CLEP scores at a prescribed level.
3. There was a commitment to practicum experience for credit in the majority of academic majors.

Several other factors also had to be recognized. Tusculum College had long been known for its historic and traditional position which prevented the acceptance of "fads." A separate, but equally important, consideration was the high degree of control exercised by faculty members in the acceptance and award of credit.

This overall assessment revealed that the ultimate potential for success in prior learning evaluation was a distinct possibility. These findings also shed a great deal of light on the most favorable strategies for planning the introduction of the experiential education concept.

Faculty Involvement

Faculty members at Tusculum College, like faculty members at most other church-related, liberal arts colleges, would be expected to hold certain perceptions based upon their own education and professional experience. It was assumed that these perceptions might be expected to include the following:

1. The belief that learning takes place as a result of information transferred from authoritative sources (i.e., books, presentations, or audio-visual materials) to students.
2. An emphasis on solving a problem which has been clearly defined and stated.
3. A belief that learning occurs in locations specifically designed or designated for that purpose (i.e., the classroom, the library, or the campus setting).

4. A need to establish a minimum number of class meetings, exact clock hours of student-teacher contact, or a traditional term period (semester or quarter).

5. Evaluation of student work by a recognized expert/academician.

6. The belief that applied learning occurs only after traditional classroom learning designed to develop theory.

Preliminary discussion with faculty members, both formal and informal, verified that beliefs held by faculty members were not unlike the preceding assumptions. In addition, there were concerns related to such topics as prerequisite courses (one cannot learn about "Death and Dying" until after one learns about "Introduction to Sociology") and evaluation without grades (we must be able to distinguish A students from C students). The final area of faculty concern was related to compensation and impact on promotion/tenure. These concerns provided an excellent basis for faculty orientation and training which made the prior learning assessment concept acceptable to the faculty.

Curriculum Integration

Prior learning assessment at Tusculum College involved building the process into a curriculum which was designed to emphasize content area (i.e., management). It was important that the students be involved in learning experiences which would acquaint them with experiential education, familiarize them with procedures for submitting materials for the assessment of prior learning, and offer them the opportunity to improve writing skills.

The curriculum was designed to include an introductory workshop for orientation to experiential education. A three semester hour course was included in the curriculum to focus upon writing skills. A second three semester hour course was designed to allow students to comprehend fundamentals of experiential education theory and application. Follow-up workshops were structured into the curriculum to provide feedback and assistance to students related to submission of material for assessment.

The prior learning portfolio was to be submitted to the Tusculum College Assessment Center by students for evaluation by faculty members trained in assessment of prior learning. The students submit the "portfolio" early in the curriculum sequence and have two additional opportunities to supplement or revise based upon evaluative feedback from the faculty through the Assessment Center.

Organizational Structure

The administrative location of the prior learning assessment unit was determined to be most critical to the ultimate impact of experiential education goals on campus. The Assessment Center was placed administratively in the academic division for adult programs. Tusculum College recognized the characteristics of adult learners as being distinctly different from those of traditional students. This recognition led to the establishment of an administrative unit with specific access for non-traditional students that was not offered for traditional post-secondary students. The organizational structure provided for two academic degree areas, each with their own assessment process for experiential learning. It should be pointed out that faculty members were involved in both assessment processes.

The other major consideration related to administrative structure dealt with the centralization vs. decentralization issue. A number of indicators (including faculty controls and accrediting standards) dictated that the assessment process be centralized. Programatically, this resulted in the practice of transporting all prior learning portfolios into the campus Assessment Center for faculty evaluation. This practice, while often cumbersome, has proven to be an asset to the program.

Financial Impact

The financial impact of prior learning assessment was very much like that of any new academic program. It involved setting fees, projecting student participation, and matching each of these to expenditure projections. The area of prior learning assessment demonstrated the potential for becoming a profitable budget center. The time available for the entire evaluation process accommodated a staffing pattern which was effective in cost control. Most expenditures were related to student utilization of the assessment process (i.e., faculty compensation based upon actual evaluations). Supply and material needs represented minimal expenditures. A creative system to combine student feedback and billing was designed. A minimal period of time was necessary for the Assessment Center to become self-supporting. This center has continued not only to operate above the "break even" level but also has financially supported other academic enrichment activities.

Quality Control

The typical concern for quality was not adequate for prior learning assessment. It had to occupy a posture of "going the extra mile" to assure quality control. Tusculum College adopted a small number of principles and adhered to them strictly.

1. The major point of quality control lies with the individual faculty member. To maintain quality, this individual must be exposed to information, feedback, and training.

2. Students must be exposed to learning experiences that differentiate between learning and experience. They must understand that documented learning may be deserving of college credit, while experience is only experience.

3. The institution must be committed to reliability in prior learning assessment. This commitment must be communicated to students and faculty and conducted above their

objections.

4. Standards for experiential learning credit should be rigorous but reasonable. They must also parallel standards for traditional learning credit which exist at the institution.

5. Prior learning assessment must recognize the breadth as well as the depth of the learning experience.

Summary

The information presented in this paper provides an overview of the manner in which Tusculum College approached the introduction of prior learning assessment. The Assessment Center routinely processes hundreds of prior learning portfolios yearly. The involvement by faculty, students, and administrative staff has created a new opportunity for learning with all involved. The entire process continues to be dynamic as students present innovative petitions for learning from the world outside the campus. Faculty members have been given the opportunity to look through this window into the world of experiential education. This assessment process has been an extremely positive experience for all of those involved.

PRIOR LEARNING ASSESSMENT GUIDE

1.	College Transcripts (Official)	1.	Submitted to Registrar	Request Prior to Admission
2.	USAFI/DANTES Transcripts (Official)	2.	Submitted to Registrar	
3.	CLEP/PEP Scores (Official)	3.	Submitted to Registrar	
4.	Documentation for Military Training and Certificated Learning	4.	Submitted in Portfolio	Request Documentation Immediately Upon Admission
5.	Initial Assessment Fee	5.	Submitted in Portfolio	
6.	Complete Autobiography	6.	Submitted in Portfolio	Developed in Coursework
7.	Resume (Format Specified)	7.	Submitted in Portfolio	
8.	Copy of Transcript and Course List	8.	Submitted in Portfolio	
9.	Experiential Learning Essays	9.	Submitted in Portfolio	
10.	Supplemental Materials/Revisions/ Payments	10.	Submitted to Assessment Center	As Requested by Notification

SOME QUESTIONS TO CONSIDER WHEN EVALUATING ESSAYS

1. Is experience cited? Does the experience cited seem sophisticated enough to have produced college-level learning?

2. Has the student observed others' experiences? Has the student explained how the experience has affected him or her?

3. Has student drawn generalizations or conclusions, developed statement(s) of principle, or explored implications?

4. Has student shown evidence of applying the learning from this experience to other situations?

5. Has student been faithful to the course description? Would another course be more appropriate?

6. Is the student's essay equivalent to college-level work?

7. Are there any errors of fact?

8. If essay does not meet standards for full credit, can you justify the award of fewer credits?

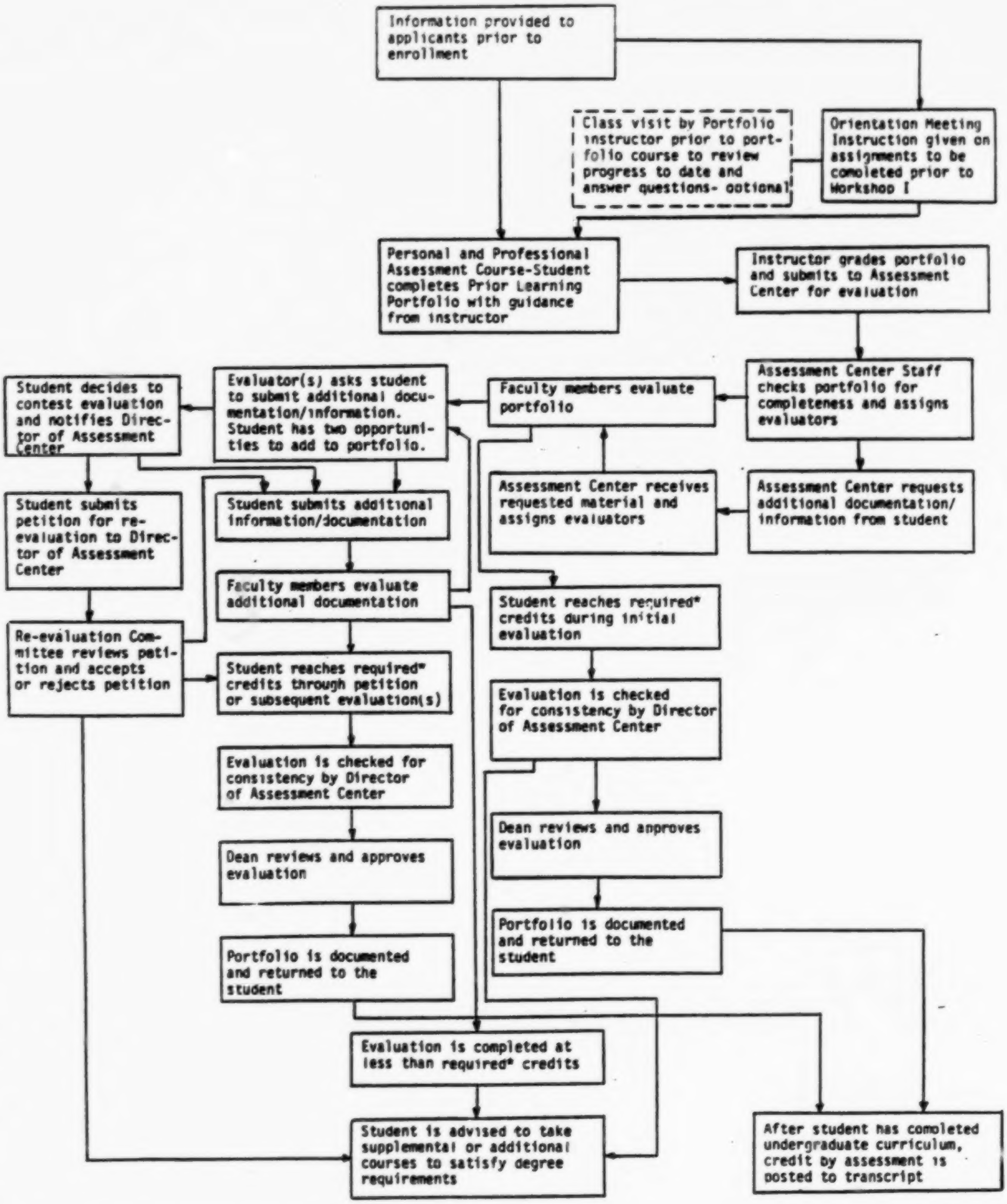
9. What should the student do to bring this essay up to standards? Rewrite? Add on? Would you suggest that the student not spend any more time or effort on this topic?

10. How will you respond to the student? If you are awarding less than full credit, remember to give the student some positive feedback. Then give him or her some suggestions on how this essay can be improved.

11. Is the essay written in standard English? Is it grammatically correct?

12. Does this essay duplicate credit from transcripts or from other sections of the portfolio?

FLOW CHART OF EVALUATION PROCESS


Information provided to applicants prior to enrollment
Class visit by Portfolio instructor prior to portfolio course to review progress to date and answer questions- optional
Orientation Meeting Instruction given on assignments to be completed prior to Workshop I
Personal and Professional Assessment Course-Student completes Prior Learning Portfolio with guidance from instructor
Instructor grades portfolio and submits to Assessment Center for evaluation
Assessment Center Staff checks portfolio for completeness and assigns evaluators
Faculty members evaluate portfolio
Evaluator(s) asks student to submit additional documentation/information. Student has two opportunities to add to portfolio.
Student decides to contest evaluation and notifies Director of Assessment Center
Assessment Center requests additional documentation/information from student
Assessment Center receives requested material and assigns evaluators
Student submits additional information/documentation
Student submits petition for re-evaluation to Director of Assessment Center
Faculty members evaluate additional documentation
Student reaches required* credits during initial evaluation
Re-evaluation Committee reviews petition and accepts or rejects petition
Student reaches required* credits through petition or subsequent evaluation(s)
Evaluation is checked for consistency by Director of Assessment Center
Evaluation is checked for consistency by Director of Assessment Center
Dean reviews and approves evaluation
Dean reviews and approves evaluation
Portfolio is documented and returned to the student
Portfolio is documented and returned to the student
Evaluation is completed at less than required* credits
Student is advised to take supplemental or additional courses to satisfy degree requirements
After student has completed undergraduate curriculum, credit by assessment is posted to transcript

*Required credits vary for each student

THE ASSESSMENT OF EXPERIENTIAL LEARNING AS A TEACHING TOOL FOR ADULT STUDENTS

Mary Sue Simmons
Solomon Deressa

The purpose of this paper is to explore our perspectives about the nature of experiential learning and its assessment. We define experiential learning as learning that occurs when changes in knowledge, skills or awareness result from an individual engaging in action with life. Living interactively with people and the environment characterizes adulthood and the effects of our actions often produce outcomes that can be assessed for learning.

We believe that experiential learning is both a valid and necessary aspect of college education; necessary in the sense that it provides the learner with first-hand learning. Experiential learning allows the student to acquire knowledge, skills or awareness for him or herself. In order to acquire context for theoretical learning, experiments or other experiential contact with theory can be used by the learner.

Theoretical learning comes from sources outside of ourselves. We read or listen to the knowledge of others and while we can acquire this form of knowledge, we cannot claim it as our own. It therefore comes to us as second-hand learning. Its critical value in our education process is that is provides context and structure for our learning experiences.

We believe it is a human need to check out our experience with others to test our separateness and to validate what we have experienced. The method most often used for this purpose is to test our experience against the prevailing theory and see where points of commonality and difference occur.

As we move through experiential learning, we can refer to the appropriate theories in order to check our experience

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against the experience of another. If our experience is validated through the checking process, we can feel greater confidence and affirmation in what we have learned. However, if a particular theory contradicts our learning, perhaps we can correct our thinking or action so that we move back on course.

In checking our experience against theory, we gain the opportunity to break out of our assumptions and possible rigidity and contemplate other assumptions. This measure of comparison provides a healthy learning structure for the student as checks and balances as well as alternative viewpoints are considered. Now the student has a choice - maintain his/her assumption and be able to defend it more strongly after considering other positions, or change some or all of the assumptions acquired during a learning experience.

For example, when confronting a difficulty in a particular life situation, a person can decide that a behavior change is necessary. Through re-conditioning and repetition, one may acquire a new way of behaving. But, we believe it is also possible to go back through earlier experiences and live through the pain of the problem as it surfaced in childhood and gain an awareness of the root of the problem. Alice Miller, a Swedish therapist, writes in For Your Own Good (1980) that the source of difficulties in adulthood is often found in our childhood where our parents controlled and shaped our responses to life's experiences. In discovering and re-experiencing our childhood hurts, we gain understanding of our adult responses and find the key to changing our behavior.

Experiential learning is a viable process for the learning of new skills or competencies. For example, an individual cannot learn to play basketball or to solve mathematical problems simply by reading books on these subjects. Skill development comes about by practice (repetition), trial and error and laboratory experiences. We may know a concept in physics by reading or attending a lecture, but we come to understand physics after specific problems are defined and solved. By experiencing and experimenting with learning in this way, we begin to acquire skills and deeper understandings. The French phrase for "do an experiment" is "faire une experience." This helps verify the close connection between the two concepts.

Personal Development

As adults, we tend to select learning experiences related to our needs. If some of the learning taps into an already familiar experience in our lives, some part of ourselves may be more clearly revealed. In a sense, the experience becomes more genuine or real if some part of our life is touched. The more a particular learning activity is experienced, the more it has potential to teach us.

We believe that experiential learning must tap into at least one more of our senses in addition to the intellect. In attending a concert or dance production, if we move beyond the role of intellectual observer and experience the movement or music more fully, we can find that we become touched or changed by the experience and may perceive some aspect of our lives differently.

John MacMurray, writing in Reason and Emotion (1935), asserts that we must develop our emotional life so that our feelings can reveal the values and judgments of the world to us. He posits that the best way to nurture our emotions is to increase our sense experiences. By choosing to believe that the life of the senses is inherently good, we secure the freedom to educate ourselves by expanding the capacity of our senses. The intellect itself cannot be a source of action, but our emotions and senses can provide motivation to act or to learn through action (p. 36-47). We believe that MacMurray has written about experiential learning even though that concept as such came years after his books were published.

The more each experiential learning activity is recognized as relevant to the individual, the more energy s/he brings to the effort. Relevance occurs when a particular experience touches the life and senses of the learner. And, it is relevance that enables the learner to claim the central ideas of the experience and makes the assimilation of knowledge or skill easier. It is not necessary for each experience to be earth-shaking. Capturing one or two insights or main points is sufficient for learning to occur as a result of the activity.

Experiential learning enhances our moral development. We gain new ideas and viewpoints from our experiences which assist us in choosing our orientations toward authority, ourselves and others. Experiential learning nurtures our development by allowing us to see the complexities of life events and the range of options for defining moral issues, values and commitments. If morality can be defined as knowing your own needs, seeing those of others and offering assistance to them when needed, then experiential learning is necessary in order to discover and affirm our values and to offer the kindness we owe ourselves and others.

Documentation

In preparing to document (define and show evidence of) experiential learning activities, students use advisers/teachers to help clarify the "discrete" components of the experience and analyze them for learning content. The adviser can ask focused questions of the student to assist him/her in naming, describing and defining the learning blocks acquired. Through the documentation process, the learning can be amplified so that an awareness of what has been learned can emerge.

It is important to discern the central issue or focus of the learning. Is the student open or resistant to defining the specific nature of the learning experience? If she is resistant, then she needs assistance in checking into her previous experiences to see what data can be tapped that may reveal the cause of the resistance and openess can be restored. Both Malcolm Knowles (1975) and Alan Knox (1977) believe that if adults can relate new learning to prior experience, the current experience takes on additional meaning and impact.

Robert Frost in his poem, "Carpe Diem," describes the power of our senses and our past experiences in the following lines:

> We live less in the present
> Than in the future always,
> And less in both together
> Than in the past. The present
> Is too much for the senses,
> Too crowding, too confusing --
> Too present to imagine.

It is critical for advisers assisting in the learning identification process to detect learner resistance to analyzing the experience and to understand that the source of the resistance resides within the student. Resistance does not signify a battle between student and adviser.

Once the components of the experience have been identified and analyzed and an awareness of what has been learned is created, the learner may (if all goes well) achieve the true gift of education, the desire to explore the area of experience even further.

Preparation for Assessment

As advisers and teachers, we assist students in preparing to have the experiential learning assessed - validated, verified and appraised. We need to serve as arbitrators so that the educational needs of the student and the institutional requirements of the college are satisfied.

This is a delicate balance to achieve and it is critical for the adviser (the student's advocate and the institution's representative) to push the actual assessment process into a win-win situation for both the student and the college.

The process of preparing for assessment involves two conditions: the adviser/instructor must remain open-minded so that limits on the discourse with the student are not established too early; the process calls for use of the Socratic method, a procedure in which the adviser asks the questions and the student (not yet aware of his own expertise) answers the questions.

As advisers, we probably do not know the subject matter or content of the experiential learning activity. Therefore, use of the Socratic method generates questions to help clarify the learning content for ourselves as well as the student. The questions may initially focus on the motives for pursuing the experience or the personal nature of the learning acquired. As the identification between the student and the experience is revealed, the student acquires the incentive to analyze and synthesize the learning in order to report it to an external evaluator and to integrate the learning into his own internal reality structure.

Assessment

As the learning is articulated for assessment purposes, the adviser and student should recruit the help of existing theories. Theory can often provide the template or model for the context and nature of the learning under review. In addition, by examining the appropriate theoretical base for the learning, what has been learned is either validated or the need for further exploration of the area is determined.

The desire to learn more about the area of experience can be heightened by Socratic questioning. Examples of such questions are:

1. What is the history of the area of learning being assessed?
2. Have other people explored learning in this area?
3. How can the student share her learning with others?
4. If the learning is viewed from another perspective, what is "the other side of the coin?"
   Responses to this question often generate the "elusive" insight for the student.
5. Why is the learning important, now that the student believes it is?
   Responses here may lead to integration of the learning as it becomes meaningful to the student

and part of her developmental growth.

The assessment process validates the experience for the student. An expert evaluator examines the documentation prepared through the above process and makes qualitative and quantitative statements about the merit or worth of the claimed learning. If the assessment goes well, the student acquires both a sense of closure and accomplishment.

We believe that adults define meaning and purpose in their lives largely through their accumulated experiences. The meaning and value of an activity having been satisfactorily assessed become integral parts of the student. Once claimed as such, they provide incentive for the imagination to create new opportunities for learning experiences so that the pleasant feelings of closure and accomplishment can occur once again. When the learning acquired is validated through assessment, the person is to some extent also validated.

Summary

The assessment of experiential learning is an educational process for the student. It can reveal new knowledge, skills or awareness that result from experience. Because learning experiences touch our intellect, emotions and other senses, it is valuable to the learner to examine the intellectual, moral and/or affective nature of the experience. In doing so, the student claims the learning and develops first-hand understanding of the subject area. Use of the Socratic method gives the student incentive to analyze and integrate the experience. When the assessment process is completed, the student develops a sense of closure and accomplishment. Continued successful learning ventures are sure to follow in the wake of student-centered learning assessment.

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QUALITY, CHALLENGE AND CHANGE IN THE PORTFOLIO PROCESS

Richard J. Hamilton

At present there are over one thousand institutions nationwide which have initiated programs of prior learning assessment. The portfolio assessment process of Thomas A. Edison State College of New Jersey serves as a model for many of these programs. Recently the college held a series of faculty meetings addressing the concept of quality assurance in the portfolio assessment process. A college faculty meeting may not, at first, seem to be the appropriate subject for a conference paper, but these meetings were quite different. Let me explain.

The Faculty

The most important cog in the portfolio mechanism is the faculty member. The process requires qualified professors who are committed to prior learning assessment. The "no-one-learns-anything-outside-of-my-classroom" attitude is antithetical to the principles of prior learning assessment; therefore, close screening of prospective faculty is necessary.

Edison State College has over three hundred faculty members of which more than two hundred assess portfolios. Since we do not hire faculty to conduct classes, we refer to them as consultants or assessors. We rely completely on other state colleges, community colleges and local private institutions as the resources for recruiting new faculty. This arrangement, which allows us to draw from a great pool of talent, gives us an envious selectivity in this regard. The minimum requirements for becoming an assessor are a master's degree and several years of teaching experience at the college level.

Close proximity to the New York and Philadelphia metropolitan areas enables us to use these academic and professional resources uniquely. Students in a traditional classroom often complain that their studies have no practical applications in the "real" world. Edison State's portfolio students cannot make such a claim. Our accounting students just might have their portfolios examined by a faculty member who is employed both as an accountant for a city corporation and as an adjunct professor in a local college - a perfect blend of the practical and the academic.

After selection, a faculty member receives an introduction to the process from a prior learning staff member and a faculty guide which covers all the procedures in the assessment process. In addition, during the new faculty member's initial assessment an Edison portfolio advisor works closely with the assessor answering any questions.

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The Process

Edison State College is New Jersey's college for adults and as such offers external degrees exclusively. One unique method for students to earn credit is through portfolio assessment. The Office of Prior Learning Assessment is responsible for guiding students through the portfolio process, which is a threefold task. First, students must be lead through the inevitable bureaucratic paper maze; second, they must complete a narrative for each course that they are challenging for credit; and finally, they must receive sound recommendations concerning the appropriateness of their portfolio evidence. Appropriateness means that the evidence meets Edison State's requirements for quality, directness, breadth and authenticity.

The most important document in this paper maze is the course description that the student chooses to use as the basis for his challenge for credit. Since Edison State does not offer courses as on a traditional campus, we do not have course descriptions; therefore our students must obtain descriptions from any other regionally accredited colleges. Of course, all descriptions must be approved by a student's academic advisor to insure suitability for use in portfolio assessment and in a plan of study.

Narratives, which are required for each course, function as a bridge between the course description and the subsequent evidence. A student's college-level knowledge and expertise in the course should be detailed and referenced to the appropriate evidence. Ideally, students have carefully examined their backgrounds and selected courses for which they have irrefutable evidence. Naturally, each topic of the course description must be addressed and appropriate evidence provided.

At this point a student typically asserts that the process has been too complicated and it would have been easier to take the course. The portfolio process is finally perceived as work; so it is only logical to confront the student with the real challenge - the evidence.

A student must present irrefutable, direct, quality evidence which is broad enough to merit receiving college credit. As one might imagine, this is not simple. To have student, faculty and administration preconceptions of appropriateness of evidence dovetail is difficult. Each participant in the process has his own concept of what the process is and what it should be - yet, we succeed.

Since the founding of Edison State in 1972, the methodology of the portfolio process has changed dramatically, each innovation reflecting increased sophistication. But the process stabilized and has remained fundamentally unchanged for several years, so a review of the process seemed appropriate. Therefore, a series of seminars to include all participants in the process was organized by the Office of Prior Learning Assessment.

The Meetings

Fortuitously or not, the first of the three meetings was held on Friday, June 13, 1986. Approximately one third of the assessors attended this first gathering. The second meeting was held in September and the third in early December. In total two thirds of the faculty assessors were able to attend. -

Each meeting was divided into two sessions. The morning session had two components. Veteran assessors met in small groups to discuss areas of concern outside of portfolio assessment, and the new assessors met with the portfolio staff and several of Edison's successful portfolio students. The afternoon session started with a panel discussion on the roles and problems of the participants in the assessment process and was followed by group discussions addressing these problems.

The morning began with assessment faculty and Edison staff making and renewing acquaintance both expressing relief that there now were faces to go with names. (A drawback in external degree programs is that there is little face-to-face interaction. Most communication is via the mails or over the telephone, and portfolios are shipped via a registered courier service.)

After the meeting was called to order, all were welcomed by Dr. George Pruitt, the President of Edison State College. Following the president's remarks, the participants were directed to the appropriate work session. The portfolio session began with a welcome to the new assessors from the director of prior learning assessment and an introduction of the assessment staff. The introductions were quickly followed by an assignment which turned assessor into student. The assembly was divided into groups of ten and given forty-five minutes to complete the assignments. Each group was requested to poll its members, and through consensus name one person whose experience they believed was worthy of college credit. After reconvening this person would present his portfolio to the assembly for review. No one was allowed to use his academic discipline as the basis for a claim nor were portfolio advisors allowed to participate or offer advice.

The discussions were lively and punctuated by frequent nervous laughter. While eaves-dropping, the portfolio advisors were pleased to hear that the calculated risk of reversing roles on the faculty was having the desired effect. The format sparked discussion and controversy and did not develop into a rote, lifeless exercise.

When order was finally restored, each group had selected a spokesperson to present a course for credit via assessment. Outwardly, the courses appeared appropriate an the evidence was seemingly irrefutable. But we had the unusual luxury of instant feedback; the faculty was present. As each group made its presentation, the scenario did not change: excitement and anticipation that their presentation was irrefutable, followed by a challenge from a faculty expert, then the inevitable anger and disappointment that the portfolio had been rejected. Each time the challenges came in the same form. Either the quality of the evidence was poor or the proposed documentation was not verifiable. In other instances the evidence was too narrow or was obviously not college level. The seemingly irrefutable evidence was challenged time and again by the authorities present. Several of the portfolios were eventually accepted, but it was quite startling to watch the reactions of those presenters whose proposals were initially rejected. Their anger, dismay and confusion were not unlike the responses of our students when their expertise is challenged or rejected.

When the presentations were finished, two students, successful veterans of the portfolio process, were introduced to the faculty. Each made a brief statement describing his respective experience in the program and offered suggestions for improving the process. Each recommended strongly that communication among advisor, assessor and student be increased to avert subsequent academic disasters, particularly after a considerable investment of time and effort. Otherwise the students were pleased with the process and would recommend it to others. When these presentations were finished, students and staff entertained questions from the faculty.

After a pause for lunch, the afternoon began with a panel discussion. On the panel were two portfolio advisors and two faculty members. The panelists discussed the roles that each plays in the process and how each thought service to the student could be improved. At the end of the panel discussion the assembly broke into smaller groups organized by degree plan. The groups were moderated by teams of Edison State advisors armed with a list of discussion topics designed to obtain faculty reaction to the quality of the portfolio process as compared to the traditional classroom approach.

The portfolio advisors wanted faculty reaction to a perceived unevenness in assessment from discipline to discipline. In some instances a narrative seemed to be more important for success than in others. A BA student challenging for credits in a foreign language does not seem to need so detailed a narrative as a BSAST student challenging for credits in welding. Yet a BA student challenging for credits in a Bible course has to present a narrative complete with citations and an annotated bibliography while a BSAST student challenging for credits in automotive technology may write a rather short narrative describing his experience and merely reference it to his evidence.

There is also a noted difference from discipline to discipline in the role that experience plays in the process. Therefore, we asked our assessors to discuss how experience relates to knowledge. Are certain experiences worthy of college credit just for having done them, or is it still necessary for a student to demonstrate the appropriate knowledge. In other words, if a student is a vice-president of human resources for a corporation, should he receive direct credit for a course in personnel management based on a resume and company verification of this information, or must he present other specific documentation to prove his knowledge? Does a particular experience indicate that a direct award of credit is warranted?

One of the most difficult questions posed to the assessors dealt with follow-up testing or evidence. If a student appears to have appropriate knowledge but one critical piece of evidence is missing, the assessor has been trained to request that the student present the missing evidence or take an examination to demonstrate expertise in the deficient area. The advisors wanted to know what prompted an assessor to request more evidence? Aside from the obvious response that something is missing, we wanted to know if it were possible to predetermine critical deficiencies. A critical deficiency is an element of a portfolio which if missing would prevent a student from receiving credit for the course. By isolating these elements we could advise students in advance and, thereby, save time, effort and heartache. Would a syllabus from each of an assessor's courses enable advisors to provide this information to our students?

The last question we considered an easy, noncontentious way of ending the discussions. We wanted feedback on the evaluation forms which faculty are required to complete after each assessment. Are the forms adequate or do they require change?

The Discussion

Once again the discussion was lively. The first question regarding quality became moot. The faculty stated emphatically that quality was their responsibility while advisors were responsible for the completeness of a portfolio, i.e. that all the appropriate forms were included and that in general terms the evidence seemed of college level.

Overall the staff felt that the quality of the portfolios has continually increased thus making their jobs rather easy. Most assessors stated that they were tougher on their portfolio students than on their classroom students. For some assessors this posed difficult questions. Were they being fair to their portfolio students? Did an alternative method of measurement require that they be more demanding? A small but vocal group insisted that they had to be stricter when assessing portfolios because they did not have ancillary classroom elements such as attendance or participation to help make a decision. Several assessors suggested that Edison State's policy to award credit for those portfolios which would receive a grade of "C" in their respective classroom courses was difficult to put into perspective. Many were certain that what they considered to be marginal portfolio work would easily have been "C" work in their classes but without the other elements found in the classroom it was impossible to make a decision in favor of the student.

The second question was handled rather easily. Although no one would recommend awarding direct credit for a given experience or based on a resume, experience does play a vital role in the final analysis. In other words, the vice-president of human resources is more likely to receive credit in personnel management than his secretary. Even though the secretary may have been present at policy and decision-making sessions, the secretary does not set the policy or make the decisions. The decision-making, by the way, is an example of a critical element which must be present in a personnel management course to warrant awarding credit.

Question three dealt with the importance of the narrative. What we anticipated as one of the easiest of the questions became one of the most controversial. The faculty felt that the narrative is an important element in the process. That it function as a bridge between the course description and the evidence is critical for success. Through the narrative a student demonstrates his writing skills, his organizational abilities and most important his course-specific, college-level knowledge. The most successful portfolios contain a well-written, logically organized and informative narrative. Under no circumstance would a narrative alone suffice as evidence, but in certain disciplines a strong narrative bolsters marginal evidence.

The controversy arose when the issue of writing quality was broached. Many of the assessors wanted to know if it is correct to reject a portfolio automatically before reviewing the evidence if the quality of the writing is not acceptable, i.e., college-level. Although concerned with the quality of writing in general, most believe it is not fair to the student to reject a portfolio before reviewing it entirely. Some assessors suggested that the writing requirements for a humanities course in literature are quite different from the writing requirements for an automotive course. Once again, the consensus was that the quality determination for the entire portfolio should be made by the individual assessor.

The fourth question, which concerned the use of follow-up evidence requests, did not spark much interest or controversy. The consensus was, once again, based exclusively on the assessor's requirements. The last question regarding the appropriateness of the rating forms was settled quickly. It was a near concensus that new forms are needed. The faculty and staff agreed that the old forms are too constraining and do not allow room for the professors to expand on the strengths or deficiencies of the portfolio. Many felt the forms actually discouraged comments.

During the seminar the theme of communication recurred. The morning began with advisors and faculty opening lines of communication and ended with a request from our students to expand our contact with them. In the afternoon, the most controversial question concerned the role of the narrative which is the communication vehicle of a portfolio. Also, in several of the small afternoon sessions, professors expressed a desire to communicate with their peers so that they could, if necessary, compare notes. Finally, in the panel discussion a call was put forth for a monograph series addressing portfolio assessment issues in more detail.

Each of the three meetings had similar results. Although specific recommendations varied, the thematic undercurrent was the same: increase communication. At the end of each meeting, an evaluation sheet was distributed to each participant. In addition to their comments on facilities, organization and usefulness of the seminar, our office wanted to know if the faculty had any recommendations regarding policy or procedure which would streamline the process and deliver a better product to our students.

Results

From these meetings, evaluation reports, and student and staff feedback, several procedural changes were inaugurated to increase communication among all participants in the process. First, a faculty directory listing the names, addresses and subjects of assessors will be developed and distributed. The purpose is to foster faculty interaction. When a difficult assessment is at hand, the concerned faculty member will be able to consult with another faculty member in a similar discipline to see what alternative solutions there might be. In addition, faculty members decided to send a syllabus for each of their courses to assist us in isolating critical elements and deficiencies.

Second, a monograph series addressing the issues of prior learning assessment will be developed under the guidance of this office. As a leader in the field of prior learning assessment, Edison State College should provide a forum for the discussion of prior learning issues.

Third, student rating sheets have been changed to allow for more expansive comments by the assessors. A section was added providing instructions to the faculty member delineating the steps to be taken in cases where more evidence is required. In addition, space has been provided to allow for specific instructions to the student as to how the deficiencies may be corrected.

Finally, plans have been laid for the next series of meetings. There were requests from many assessors that at future meetings teams of assessors from similar disciplines meet and discuss specific portfolios and the steps in the assessment process.

PARTNERSHIPS IN ASSESSING PRIOR LEARNING: A MODEL COLLEGE-UNION PROGRAM

by Hugh B. Hammett

The College Assessment Project (CAP) is designed to facilitate entrance into college degree programs by New York State employees who are represented by the Civil Service Employees Association. CSEA, a large public employees union, includes approximately 110,000 state workers among its 250,000 members.

Features of the College Assessment Project

Several objectives informed the preliminary plans for CAP. The project was intended to provide:

(1) Treatment of students as adults with respect for individual interests and learning agendas;
(2) Competent, informed, personalized counseling about college options with positive encouragement to explore a range of educational resources;
(3) Recognition of the importance of learning from life and work experience through a streamlined process to document, evaluate, and develop recommendations for college credit.

Services to Student Clients

New York State workers who are members of CSEA receive many direct services that include:

- Counseling about college options;
- Guidance about occupational choices, adult transitions, learning styles, and educational pathways;
- Counseling about standardized proficiency examinations; and
- Individualized portfolio evaluation with recommendations for college credit.

The CAP Center maintains cooperative agreements with partner colleges to facilitate student referrals, develop appropriate policies and standards of practice, and provide training in assessment practices.

Comprehensive Counseling About College Options

Supported by funds negotiated through collective bargaining agreements with New York State, the project described above has been developed by the Labor Education Action Program of CSEA and Empire State College, a premier American institution providing nontraditional and experimental programs for mature adults. A demonstration site opened on January 1, 1987, to serve 25,000 state workers in the Albany, New York, area. Initial success has been evidenced by the appearance of qualified

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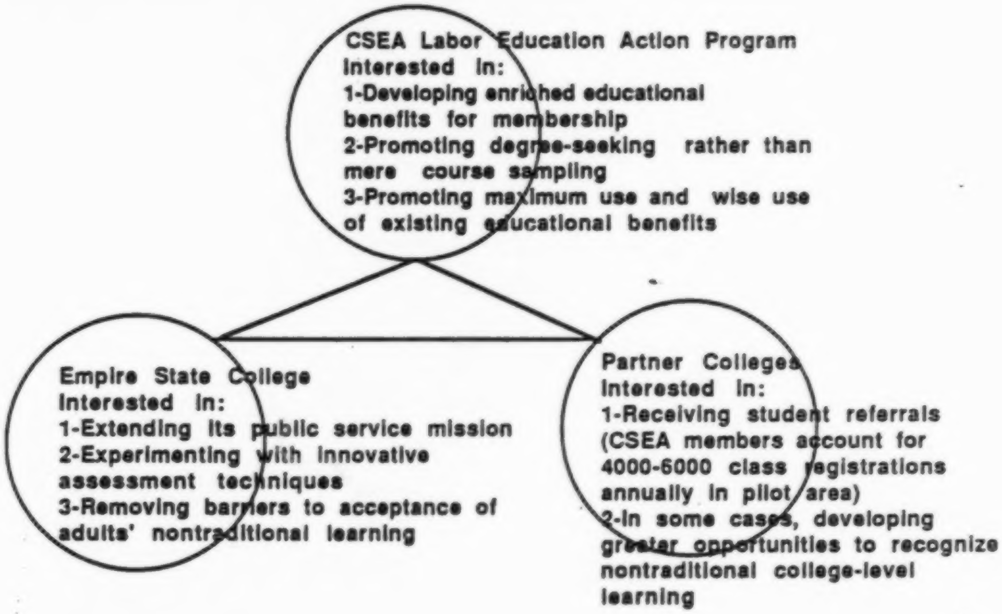
students and enthusiastic college partners. This progressive and comprehensive joint college-union project is, to the best of our knowledge, the only one of its kind in the United States.

Eight Working Principles for Innovative, Cooperative Assessment Projects

Many important issues of structure, policy development, and academic practice have emerged in CAP's formative stages. They may best be conveyed through a series of "principles" that can be useful for others who may venture into the churning waters of assessment services for adult learners. If you wish to undertake a cooperative, innovative assessment project, these principles are worthy of consideration.

1—Be clear about the *needs and interests* of all participants in the project.

One of the chief reasons that CAP has worked well so far is the conscious emphasis in the planning stage on *benefits*. What is the incentive for people to get involved? What do partners get out of the project? And those benefits, of course, must be clearly tied to *needs and interests*. The needs and interests of the principal participants may be depicted in the following way:



CSEA Labor Education Action Program
Interested in:
1-Developing enriched educational benefits for membership
2-Promoting degree-seeking rather than mere course sampling
3-Promoting maximum use and wise use of existing educational benefits

Empire State College
Interested in:
1-Extending its public service mission
2-Experimenting with innovative assessment techniques
3-Removing barriers to acceptance of adults' nontraditional learning

Partner Colleges
Interested in:
1-Receiving student referrals (CSEA members account for 4000-6000 class registrations annually in pilot area)
2-In some cases, developing greater opportunities to recognize nontraditional college-level learning

2—Be student-oriented.

Emphasize benefits that connect to the needs and interests of your student customers. Remember that adult learners tend to be more consumer-conscious. And they are time-conscious.

Be direct and realistic in your counseling. Our five-page worksheet for estimating prior learning credits reads as follows:

> *Don't underestimate yourself. This exercise is designed to stimulate your thinking and to help identify all possible prior leaning that may be college-level. Your CAP counselor will give you realistic, honest feedback as to whether various suggestions are feasible or likely to yield credit.*

Put responsibility on your students to complete certain tasks, *e.g.* collecting transcripts; getting information about training courses at work; interviewing people in proposed career fields; reviewing college catalogs. These are sample activities, of course, but the point is to gain active student engagement from the start. And you may also be able to determine whether the student is willing to make a serious commitment to undertake the demands of college study.

3—Be clear about your role--what you do and don't do.

In our particular structure, CAP is constituted as an assessment center. It does not offer courses, award credit, or grant degrees. It is important for student clients to understand that they can receive informed advice about college options, assistance with career exploration, counseling about proficiency examinations, and even expert evaluation of individualized learning. They cannot, however, receive final credit awards or degree program approval at the CAP Center. Thus, the currency in which CAP counselors deal consists of *estimates* and *recommendations*.

We clearly differentiate our counseling and advising role from the traditional and legitimate role of faculty in partner institutions to control curriculum (whether individualized or departmental) and to grant credit and degrees.

Of course, the CAP staff hopes that its recommendations will be accepted and, therefore, we maintain close contact with advisory committee members at partner colleges. Through our advisory committee, CAP counselors always seek advice and input from appropriate faculty and administrators before proceeding with final recommendations that a student do a "portfolio" at CAP. In addition, student clients are advised that partner colleges may require additional assessment and degree planning activities beyond what can be done at the CAP center.

4—Identify or invent methods and instruments that facilitate time-shortened and cost-effective processes.

There are two big problems with educational assessment services for adult learners. If done conscientiously, they are (a) expensive, and (b) time-consuming and clumsy:

> (a) Nearly all acad[illegible] counseling is expensive. That's why colleges historicall[illegible] o it so poorly. It ties professionals up in face-to-face meeting[illegible] focused on individuals' problems in a setting oriented to the economics of groups. Although some useful academic advising may be done in classes, very few colleges bother.

(b) Assessment is also time-consuming and often clumsy for all concerned. Few adult students arrive at the door of a nontraditional program with a portfolio of prior learning in hand or head. Adults who have prior college-level learning may not, in fact, really know what *college-level* means. Nor do they understand initially how to translate knowledge gained from experience into the equivalent of knowledge that might be taught in a college class. Other degree program considerations such as distribution among fields, liberal arts and sciences requirements, or requirements for advanced-level study are alien to the uninitiated. And the principle that most colleges follow of awarding credit only in the context of an approved degree program means that final acceptance of prior learning is often deferred for extended periods.

One goal, therefore, of the CAP project has been to find and create instruments that can save time and expense. Our *Worksheets for Prior Learning Credit Estimate* provide structure and put responsibility on the student client for compiling and sorting information that will allow a counselor to give a reasonably informed estimate. (See appendix 1). Our *Evaluation Worksheet and Form to Recommend Credit for Learning from Life and Work Experience* is both an evaluation form and a gentle teaching document to assist qualified evaluators in identifying specific learning outcomes. (Available from the author). The use of a computer-assisted career counseling program *Discover for Adult Learners*, developed by the American College Testing Program, has been a boon for the project. *Discover* allows counselors to focus on individual outcomes and results of students' work with the computerized guidance program.

5—Focus on quality.

A concern for quality is paramount to build and maintain credibility with student clients and partner colleges. Accordingly, the CAP Project has developed strong, comprehensive academic policies based on those formulated by Empire State College since 1971. The college's policies, in turn, are grounded in the standards of good practice promulgated over the years by the Council for Adult and Experiential Learning (CAEL) and affirmed in 1985 by our accrediting association, the Middle States Association of Colleges and Universities.

Faculty involvement is critical to quality and credibility. Through members of our advisory committee, faculty at partner institutions review policies and procedures and will serve as expert evaluators for portfolio review. We also plan periodic reviews by faculty panels and advisory committee members of all portfolios completed at the CAP center. In addition, we intend to do occasional double assessments to check for consistency and fairness. The results of all evaluative activities are reported quarterly to CSEA-LEAP along with other program statistics.

Proper management is essential. To be a viable assessment center, CAP must follow good registrial practices in handling "official" records such as transcripts and proficiency examination scores. As a test site for some proficiency examinations, CAP must have proper security procedures for storing and administering tests.

Give adequate attention to staff development. Although all three project counselors have had previous assessment and advising experience, CAP continues to be an experimental venture and demonstration project. Consequently, it is imperative that staff get out of it all the learning that is to be had. Bi-weekly staff meetings are given primarily to the discussion of "cases" presented by each counselor. Feedback from the group with strategies for what to do--and not to do--is abundant. The sessions have a powerful motivating impact not only in the quality of learning that is shared but also in stimulating creativity and enthusiasm for tackling new situations.

6—In seeking college cooperation, develop policies that promote cooperation rather than conflict.

Initial response to CAP from area colleges has been encouraging. Ten institutions in the Capital District (Albany area) are represented on the CAP Advisory Board. There is also representation from the Central Administration of the State University of New York, CSEA—LEAP, and the Hudson-Mohawk Consortium of Colleges and Universities. Only three local institutions, two large universities and one small liberal arts college, have not joined as yet.

All partner institutions are interested in referrals of good students. Several have some process for nontraditional assessment of adult students' prior learning. Over the next few months, several may "liberalize" by accepting new mechanisms for recognizing prior learning. Comments from advisory committee members indicate appreciation of the opportunity to engage with colleagues from other colleges about the issues involved in serving adult learners effectively.

From the start, CAP originators have recognized the difficulty of gaining conformity in assessment practices among various institutions with diverse historical traditions, including strong faculty control of academic curricula. As realists, therefore, we defined "partnership" as having two obligations:

(a) Membership and regular participation in the Advisory Committee; and

(b) A clear institutional response to CAP's academic policies to allow counselors to advise students on what bases the campus will consider prior learning credit recommended by the CAP Center.

In short, we have not insisted that any institution change its current policies, but we hope long-range that partner colleges will open up more avenues for validating and accepting nontraditional learning. As students themselves become more aware of varying institutional policies about recognition of prior learning, they will be in a better position to make informed choices.

The project, then, is designed to promote and encourage the long-term development of partner institutions as well as our student clients.

7—Be flexible, and be prepared to be surprised.

One of the unremarkable things about an honest demonstration project is that it does *demonstrate*. It's designed to let you test the things you thought you knew. Those of us who work at Empire State College may rightfully have some confidence that we know a good deal about assessing adults' learning. The college has been a leader in this field not simply in theory and concept but also in practice--Empire State College processes more than 1200 portfolios of prior learning a year. And yet, the CAP staff has already found some surprises.

For example, we initially underestimated the level of associate degree activity among our CSEA audience. We predicted that interest in two-year degrees would be strong, but the demand has been even greater than anticipated. This situation has significance for a project that was originally to focus principally on developing portfolios of prior learning. Even through all three community college partners accept individually evaluated learning, their technical and professional curricula--like that at many two-year colleges--tends to be very tightly "packed" with required courses that leave little room for elective evaluated studies. Therefore, many of our student clients are "on hold," in the position of deferring evaluation of prior learning until it can be applied to a baccalaureate degree program.

We have also been surprised by the compelling need for basic college information, evidenced by an appalling lack of awareness about how colleges work. Many students who have accumulated blocks of credits at one or more institutions do not know how to access services on campus to use libraries, get academic advice and program information, transfer credits, choose majors, identify proficiency examinations or previously evaluated learning, and so on. To illustrate:

> *Mark, an ambitious and well-spoken student, earned more than 50 credits at "X" community college ten years ago in civil technology. Two years ago he became interested in real estate, bought four rental units, did well, and is now very interested in business as a career direction. He is currently enrolled at "Y" community college and has accumulated 18 credits in business administration. When he came to the CAP Center, he had no idea that credits from his previous study in civil technology might be transferable to his new program, A CAP evaluation resulted in identifying nearly 30 credits from his previous study that are equivalent to requirements in Mark's current curriculum. Armed with our recommendation and his previous transcripts, Mark will present himself at "Y" community college for matriculation and will be much closer to completion of his associate's degree than he had thought.*

While Mark's case may seem somewhat dramatic, it is representative of the urgent need that adult students have for basic counseling and advice about their educational plans. Also needed is a stronger consumer orientation on the part of students who use union, agency, and corporate tuition programs. Colleges and universities mean no deliberate harm by their omission of adequate counseling and information, but they simply do not have the incentive to invest resources in student-oriented services of this kind.

Finally, we have been surprised at the vigor with which our student clients seek career counseling. As state workers in a fairly rigid system of civil service grades, many of our students seek help in identifying new career paths. Many feel that career ladders are limited or nonexistent in current positions. Some who are in support staff positions would like to move to the professional ranks. Most recognize that education is a door to opportunity. But *what* opportunities? The reason, in fact, that many of them "sample" and "dabble," taking a course here and there, is that they are unsure of longer-range career objectives. And even when career directions are established, they are not clear as to which college programs can help them reach their goals.

In only a few months of experience with this project, we see evidence that colleges misunderstand and ignore the need for career counseling for adults simply because most of them already have jobs. Moreover, we are convinced that unions, governmental agencies, and companies could, by attention to this area, gain far greater payback from their investment in tuition aid programs.

8—Plan to grow.

There is a bright future for student-oriented assessment and counseling services for adults. Powerful demographic and economic forces have focused colleges' attention as never before on adult learners as a target audience. *If colleges are going to take adults seriously, they are going to have to take their prior learning seriously.*

Concurrently, unions, agencies, and companies are taking a hard look at their educational benefit programs with an eye toward outcomes, accountability, and return on investment. Like CSEA (which has impressive educational benefits), organizations want similar programs to be used for their maximum potential.

As of this writing, Empire State College has already received inquiries from two New York corporations who see the CAP model as a possible means to provide services for dislocated workers. CAP's next variation, currently under development, is known as *MAP*, the Mobile Assessment Project. MAP will be designed to deliver services via mobile teams of counselors, counseling by telephone and computer, computer-assisted programs, programmed print material, and networks of volunteer counselors. A longer-range possibility exists that CAP may become the model for regional assessment centers to serve the entire State University and community college system in New York.

Conclusion

Rarely has such a happy coincidence of partners and interests come together: a public employees union, its membership, state government, and ten colleges. The College Assessment Project is already providing invaluable services to its constituents. It shows promise of expanding into other variations that can extend its benefits across large geographic areas to all members of CSEA and to other audiences as well. While it is designed to assess the learning of others, those involved in its creation have found it to be a vital venture in learning.

Empire State College gratefully acknowledges the financial support of New York State through the Governor's Office of Employee Relations and the ongoing contributions of the Civil Service Employees Association, Inc., Labor Education Action Program, Thomas Quimby, Director.

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COLLEGE
ASSESSMENT PROJECT
Empire State College — CSEA/LEAP
Suite 1038, 90 State Street
Albany, NY 12207
telephone (518) 447-6778

Your Name:

Address:

Telephone Numbers:
Work:

Home:

Worksheets for Prior Learning Credit Estimate

Instructions:

1-Complete these worksheets now. They are designed to provide information that your CAP counselor will need to make an early estimate of your possible credit for prior learning. Please complete each section to the best of your ability. If a section is not applicable, write "NA" or "None." Bring the completed sheets to your next appointment with your CAP counselor.

2-Don't underestimate yourself. This exercise is designed to stimulate your thinking and to help identify all possible prior learning that may be college level. If you are in doubt about certain items, include them anyway. Your CAP counselor will give you realistic, honest feedback as to whether various suggestions are feasible or likely to yield credit.

3-Be honest with yourself. Any estimate depends upon the accuracy of the information that you provide. Eventual credit recommendations will depend upon verification of the information and evaluation of your credit requests by experts selected by the CAP Center.

4-Keep in mind some of the rules that govern the award of prior learning credit by colleges and universities.

- You can receive credit for *learning* from experience, not for experiences themselves.
- Your learning must be *college-level*.
- You can receive credit *only once for a particular set of learnings*; credits recommended cannot be overlapping or duplicative.

5-College practices vary. The CAP Center can provide *estimates* and make *recommendations*. Final decisions about credit awards must be made by the college where you enroll for a degree. Your CAP counselor can advise you about our partnership agreements and various institutional practices.

EMPIRE STATE COLLEGE
CAP
CSEA/LEAP

The College Assessment Project is located in the National Savings Bank Building and is open Monday through Thursday, 8:00 a.m. to 5:00 p.m.

Transcript Credit. Please list below all courses from *regionally accredited colleges and universities* which you completed with *a grade of C or better.*

Date	Institution	Course	Credits
Sample entry *1970*	*SUNY/Cortland*	*Child Development*	*3 sem.*

Courses at Non-Accredited Schools and Colleges. List all courses which you have completed at non-regionally-accredited schools and colleges such as business colleges, technical institutes, community education programs, Bible colleges, professional organizations, art institutes. *Courses of this type do not yield credit directly but may indicate learning which can be validated with additional evaluation.*

Date	Institution	Course	# Classroom Hours
Sample entry *1978*	*Visual Arts Institute*	*Intro to Drawing*	*30*

Scores on Standardized College-Level Tests. In these columns, list all proficiency examinations that you have taken such as CLEP, AP, GRE, CPEP, Regents College Examinations, etc.

Date Taken	Test	Score
Sample entry: *10/21/85*	*CLEP Humanities*	*560*

Civil Service Examinations. Below list the Civil Service Examinations that you have completed.

Date Taken	Test	Score
Sample entry *12/79*	*Stenographer, SG-5*	*96*

Armed Forces Training. Some military courses have been evaluated for college credit. Please list below any training courses completed during military service.

Dates	Type of Training/Course Title	Location
Sample entry *1983*	*Medical Supply Specialist*	*Ft. Bragg, NC*

Licenses and Certificates. List any licenses or certificates you have earned such as FAA licenses, insurance licenses, EMT certificates, real estate licenses, nursing certificates, airframe and power plant licenses, etc.

Date Awarded	License/Certificate	Location
Sample entry *1974*	*Real Estate Brokers License*	*Albany, NY*

Learning from Work Experience. Please list the things you have learned from experiences on the that may reflect college level learning.

Dates	Position or Job Title	Learning
Sample entry *1960-64*	*Office Manager*	*Personnel Administration*

Training Classes on the Job. Please list below all formal training courses that you have successful completed at work.

Dates Taken	Type of Training/Course Title	# Classroom Hours
Sample entry *12/85*	*Time Management*	*6*

Specialized Personal Learning. In these columns, identify any substantial specialized learning that you have acquired from family or personal experiences such as knowledge of nutrition for coronary patients or learning about child development.

Dates	**Experience**	**Learning**
Sample entry: *1969-present*	*Communicating with and interpreting for deaf parent*	*American Sign Language*

Volunteer, Community Activities. Below list any substantial learning you have acquired through experiences such as church activities, community service, political campaigns, etc.

Dates	**Experience**	**Learning**
Sample entry *1979-84*	*Town Zoning Board member*	*Functions of local government*

Foreign Experiences. Identify any foreign languages that you speak or foreign countries where you have lived or traveled extensively and the number of years you have spoken the language or lived in the country.

# Years	**Language or Country**	**Level of Knowledge**
Sample entry *3*	*Spanish*	*Introductory*

Special Abilities, Talents, Interests. List any subjects that you have studied on your own, special interests, abilities or talents that may represent college-level knowlege, also indicate the number of years you have used these abilities or talents.

# Years	**Subject, Talent, Interest**
Sample entry *15*	*Playing the piano*

INSERVICE TRAINING: FACULTY PARTICIPATION IN THE ASSESSMENT OF PRIOR LEARNING

Denise M. Harty[1]

ABSTRACT

To assess experiential learning, the individual must participate in activities which allow the utilization of prior knowledge and skills. Understanding the role of life and work experience can best be appreciated in this context.

University faculty were invited to workshops which introduced them to the concepts, theories and practices for the implementation of prior learning assessment. Faculty had the opportunity to place themselves in the role of the adult student applying for credit, define learning outcomes and establish standards for the evaluation of requests in light of their own disciplines.

The insight gained in these workshops strengthened the faculty's abilities to deliver educated decisions regarding student requests, raised the consciousness of faculty to conduct objective evaluations and enlightened individuals who had never before assessed prior learning applications.

The workshop was an introduction. After a semester which allows the implementation of theory to practice, a follow-up will be scheduled both to continue the learning and to address questions elicited by the activity.

Faculty are the ideal assessors of experiential learning. They are the experts in their disciplines; and by their tasks as a teacher are familiar with tests and measurement. They can identify competency within their area of mastery which is commensurate to that expected in a college-level course; and they can establish criteria for meeting an acceptable level for receipt of course credit.

Experiential activities such as the internship, cooperative education programs and field experiences have provided avenues in the college curriculum which combine theory and practice. These established college-sponsored programs are acceptable by faculty generally without question. However, non-sponsored learning which develops outside of the educational institution becomes a source of dubiety although the learning which results in both circumstances may be comparable.

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For faculty to value and understand the similarities and differences in experiential learning which occurs both in the sponsored and non-sponsored milieu, they must be trained in the assessment process.

Primary to the establishment of a non-traditional college program which grants credit for prior learning is the creation of standards for measurement and evaluation by the evaluators themselves. The assessors should understand the philosophy, principles and practices of experiential learning, the appropriate application of prior learning to a program of study, the necessity for a standard in evaluation of life/work experience requests, the development of assessment techniques and tools, and the validity and reliability of the assessment outcome.

Several premises need to be examined, discussed, and placed in the context of assessment policy development. First, that learning which occurs outside the traditional classroom through travel, hobbies, self-directed study, community activities and the like can produce transferrable knowledge and skills comparable to those learned in a formal course. Second, that it is more important to focus on what a student knows and not only how it was learned. Third, that the amount of time expended studying is not indicative of the amount of learning gained. Fourth, that the activities prescribed by the classroom teacher to promote learning do not produce the extent and quality of learning in each student alike. Fifth, that for each course in "English Composition" offered by various faculty members, there will be as many ways of evaluating competency in that course as there are teachers. Sixth, that even within the traditional class, students progress at variable paces. Seventh, that a specific grade may represent a variety of competencies among the students in a class. Given these conditions, the role of faculty may be defined.

Richard R. Reilly et al. (1977, p. 6) and Urban G. Whitaker (1976, pp. 196-7) conceptualized the assessment process as involving six stages:

(1) identification of the learning acquired through experience which is college -creditable
(2) articulation of the experience with programmatic goals
(3) documentation or provision of supporting materials to verify the learning
(4) measurement of the amount and quality of the learning
(5) evaluation of the learning against established standards
(6) transcripting or recording the receipt of credit granted for prior learning.

Foremost, an encumbrance is placed on the student for identification and documentation in consultation with a counselor who can provide the insight and recommendation for the articulation within the student's program of study. Transcripting is generally an administrative function. The remaining two aspects most often involve the faculty assessors, that is measurement and evaluation;

how will the learning be assessed and has a level of proficiency been achieved to satisfy the standards of acceptance.

Faculty Workshop

The majority of faculty at Fairleigh Dickinson University had not been involved in the appraisal of non-sponsored experiential learning prior to the commencement of the adult degree program, Success in 1985. To assure consistency in evaluation practices, college deans nominated faculty who were representative of the various disciplines to participate in the first series of workshops in December 1986.

The workshops provided faculty and administrators with an introduction to the assessment process. Topics included the history and philosophy of experiential learning, the needs and responsibilities of adult students in seeking credit for their prior learning, and the role of the faculty in defining learning outcomes and setting standards. The presentation was experientially based and provided practial application. Attendees had the opportunity to address the critical issues as it related to their disciplines.

Initial efforts were made to overcome negative opinions of learning occurring outside the traditional classroom. An opening exercise encouraged the faculty to identify characteristics of the adult student over twenty-five years of age, both pro and con. These traits were then analyzed and reflected upon in light of educational learning theories. At an elementary level, questions focused on what constitutes learning at a college-level, what amount and quality of learning would be necessary and how current must the student's knowledge and skills be.

The participants completed an "Adult Learner Simulation" exercise which asked them each to identify a learning experience based upon volunteer work, leisure time, employment, household or special skills. They then assessed their level of ability: could they teach the information to someone else; was their performance or understanding within that experience satisfactory for their own regular utilization; or do they themselves need more training before the skills can be applied. If the faculty were to request prior learning credit for such an experience, what form would that evidence take? Would they request a product evaluation, performance evaluation, test, or would they supply written documentation and verification?

Although the exercise was brief, it allowed the faculty an opportunity to experience the assignment a student would have had in developing their own portfolio.

The workshop attendees also reviewed an actual student's request for credit and all available documentation. Participants reviewed the materials as they would have, had they been asked to do so as the assessor for that course. Many paramount issues were raised regarding the amount of documentation necessary, and the appropriateness and quality of the documentation provided.

It became apparent that definitive criteria are integral for the evaluation to be equitable and consistent. The faculty workshop concluded with a discussion and direction for establishing standards within each discipline so that intelligible evaluation guidelines can be delineated.

During the Spring 1987 semester only a small number of the workshop participants have had an opportunity to conduct actual evaluations; however, a follow-up group session is planned for late in the semester to evaluate their activities and to provide further direction and clarification based upon their interests and questions.

It cannot be assumed that subject matter specialists are automatically prepared to appraise the non-traditional student's portfolio. Faculty training is a requisite especially for the assessment of non-sponsored learning where teachers are unequipped to formulate judgements on life/work experience as they correlate with college-level preparation. The unprepared assessor jeopardizes the student in the pursuit of their studies, and without adequate guidelines cannot produce reliable and objective treatment of student's requests. To be a subject matter expert alone is insufficient. Motivation and psychometric resourcefulness as well as disciplinary expertise is essential for impartial measurement and evaluation.

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USE OF PRIOR LEARNING ASSESSMENT IN AN UNDERGRADUATE LIBERAL ARTS COLLEGE-
PAST, PRESENT AND FUTURE

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Background

Prior learning assessment became an integral part of the unique offerings of Livingston College, Rutgers, The State University, New Brunswick, N.J. during the 1960's.

Originally founded in 1965 and opening in 1969 with a freshman class of 800, Livingston's original mission was to become the "M.I.T. of the social sciences". As a free standing coeducational liberal arts college Livingston's faculty and course offerings were to emphasize social science research and applications. Livingston College once operational would have a decidedly elitist orientation where only the most able would enroll and where faculty activities would be of the highest caliber. The turmoil experienced by Americas cities in 1965 and 1967, however, changed this orientation considerably. The planners of the school, while wishing to hold onto the social science preoccupation, wanted Livingston to also become an agent for social change by enrolling students of all races, classes, religions and ethnic groups! The school would become a "laboratory for learning" because students would study, reside and socialize with peers and faculty like and unlike themselves. In essence Livingston College would demonstrate to the society at large that different "peoples" could work together in harmony thus hopefully avoiding any future racial tensions that was seemingly the catalyst for the urban riots in Newark, Detroit and Los Angeles. Developing a creed "strength through diversity" and adopting a premise that the college must be 1/3 black, one third white and 1/3 hispanic, the college mission transformed resulting in an orientation that was definitely anti elitist and that many would today call "experimental." The college, opening in 1969, had adopted several features that it hoped would alter the course of study at the other divisions of Rutgers not to mention the entire scope of higher education. When freshmen moved into the residence halls in 1969, there was very little about Livingston that resembled M.I.T. In fact, Livingston's outlook and mission more closely approximated that of the Antioch and the Bennington of the 1930's. Focus for the college was denoted by the use of one word - contemporary - contemporary in practice as well as in ideals.

The shift to a contemporary, multi cultural, multi ethnic focus, while somewhat accidental, was also much more politically palatable for

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Rutgers, while remaining private for 190 years, had become in name and statute the state university in 1956. The university had not become even by 1969, however, a state university in the tradition of the state universities of the Mid-West. Its student body did not adequately represent the diversity of peoples within the state nor did curricular offerings connect in a direct way to the unique needs and populations of the state. The university admittedly grew rapidly and attempted to realize its new found mission as the state university. Livingston's opening as a contemporary minded college gave impetus to the goal of not only enlarging the university's offerings but of reaching out to populations heretofore excluded from Rutgers. Within this context, Livingston received support from state and Rutgers officials for programs in Afro-American studies, anthropology, computer science, Puerto Rican studies, social work and urban studies/urban teacher education. In addition, students would have the maximum freedom to learn in their own ways and at their own pace. Restrictions would be few and opportunities for growth would then be limitless. Students could create their own majors, undertake their own learning contracts and participate in internships that all departments were encouraged to implement. Credit for prior life experiences including but not limited to military service, government service, business and/or industrial experience would be granted. Livingston's students would enter with the weakest and the strongest credentials. Poorly prepared students might benefit from Livingston's remedial offerings and well prepared students might benefit from the freedom to pursue contemporary social science offerings that students (both young and old) could apply in the ghetto, in the work project, and in the labor unions (through prior learning contracts and/or internships): As the first catalogue stated,

> "Livingston College will have no ivory towers. It cannot - our cities are decaying, many of our fellow men are starving - social injustice and racism litter the earth - weapons of awesome destruction threaten our existence."

Prior Learning Assessment - Then to Now

As part of an effort to enroll non-traditional students with educationally related work and life experiences, Livingston began to implement a procedure for granting academic degree credit based on factors other than classroom work, supervised fieldwork or independent study (Kehl, 1977). The 1971 catalogue contains the first formal statement that credit for prior life experience would be granted (Kehl). Departments determined policies and for awarding credit. All experiences must have taken place prior to admission and "the grant of credit was for academic - related achievement which demonstrated substantial learning and not merely for the experience; the student had to document the experience; and departments had to establish clear guidelines and procedures for the grant of prior experience credit." (Kehl) In 1972, thirty five students received an average of twenty college credits from various departments with Education and the Department of Community Development the most willing to grant such credit (Kehl). By 1976 only a couple of students entering opted for prior learning experience credit and for the last several years no one has attempted to earn credit through the process (Kelly, 1987).

The obvious question to ask is why are no students exercising the prior learning experience option. In discussing the reasons one hopes to ascertain a prescription for the future because clearly prior learning assessment represents valuable and beneficial opportunities for all prospective college students particularly given the significance of the "adult learner" in many colleges marketing strategies.

In short, the reasons relate to a) the unique organizational structure of Rutgers University in New Brunswick referred to as the federated plan and the lack of acceptance by Livingston's neighboring colleges within this federated system. This lack of acceptance of Livingston resulted in a repudiation of all the unique offerings of Livingston College. b) the lack of quality assurance and systematic evaluation. c) the changing nature of Livingston from an experimental college to a more traditional liberal arts college. Prior learning assessment was too intertwined with the Livingston experiment. When the experiment was over prior learning assessment lost its relevance.

The federated system at New Brunswick permitted Rutgers to enlarge the school's enrollment without depersonalizing the experience. When Livingston opened, Rutgers already operated a liberal arts college for men (Rutgers College), for women (Douglass College) and for evening students (University College). Each college had its own faculty and specialized in serving particular populations. Rutgers' President, Dr. Mason Welch Gross, influenced by his Cambridge, England experiences and by his hopes of avoiding the massive depersonalization operating at other public universities (most notably described by Clark Kerr in his book The Uses of a University), envisioned that Livingston College would become the first of three, medium sized, autonomous, specialized liberal arts colleges on a large tract of land formerly owned by the U.S. Defense Department. Having a federation of smaller liberal arts colleges would allow personalization and cross registration procedures would allow broad curricular choices for students within the federation.

The university's failure to establish the other two colleges because of changing state priorities and fiscal contingencies prevented any significant physical/academic enhancements of the campus where Livingston was located or where the proposed colleges were to be built. Livingston began as a physically and spiritually isolated college within the Rutgers system. When it opened, many buildings were not complete and some were surrounded by a "sea of mud." Livingston's identity, as an "experimental" college, of which prior learning assessment was an integral part, became jeopardized from the start. This is true because the college for years lacked campus identity, service and residence halls facilities and any strong connection to other Rutgers colleges and students. Limitations placed on cross registration by the other colleges because of antipathy toward Livingston College increased the isolation of the college and produced doubts on the part of Livingston College planners with regard to its ability to change Rutgers and higher education in general. Without the other colleges developing in close proximity, Livingston felt aloof and distant from the partners in the

Rutgers federation forcing Livingston planners to adopt strategies to enhance connectedness with other Rutgers units and concomitantly to de-emphasize any innovation not approved of or accepted by the more traditional faculties and Deans. Ultimately plans for beautification and academic innovativeness were compromised. The other Rutgers units already suspicious of their new neighbor became more suspicious when opportunities for interchange did not transpire easily. Whereas, Livingston's planners were at first probably elated as to their distance from the other "downtown" campuses, this distance ultimately forced Livingston to become more like its federation partners. The experimental nature of Livingston and its innovations in such areas as prior learning assessment eventually suffered not only because of the lack of attention/interchange in relation to Rutgers' other colleges but from a lack of attention on the part of Livingston policymakers now forced to devote time to acceptance rather than improvement of curricular offerings and initiatives.

If anything one can say prior learning assessment suffered from benign neglect on the part of its very creators and as such became by the end of the 1970's nothing more than a paragraph in the more traditional looking Livingston catalogue. Of course, this occurence came as a "delight" to Livingston's "partners" in the federation but it more importantly confirmed Livingston's failure to change others more than it had been changed by others.

Prior learning assessment suffered from a lack of any substantial research or evaluation. In, the tumultuous days of the 1960's, research and evaluation was an anathema to many at Livingston, but the failure to evaluate its importance for students learning experiences coupled with an inability to clarify its goals resulted in its disappearance by the 1980's. Evaluations which did occur were imposed from the outside and were not part of a coordinated or continuing effort (Kehl, 1977). The colleges inability to articulate goals and outcomes of prior learning assessment resulted in impressionistic evaluations formed usually by anti Livingston College antagonists most notably from individuals within the other colleges in the Rutgers federation.

Finally, emphasis on prior learning assessment decreased as Livingston College moved away from its "experimental" beginnings. If the place of prior learning assessment within an experimental college was appropriate then what was its place in a college that had by 1981 seen its faculty merged with the other Rutgers University faculties. In 1981 Rutgers-New Brunswick underwent a faculty reorganization resulting in singleton arts and sciences departments. All students within the federation of colleges satisfied the same major requirements now common to New Brunswick rather than being common to a students college of enrollment(e.g., Rutgers, Douglass, Livingston or University College.) While still attempting to cling to its original social justice themes, Livingston College became (reluctantly, I might add) to look, act and operate like the other colleges within the federation. Many felt that by 1981 the experiment at Livingston was over and that this reorganization would be the death knell for many of the innovations Livingston sponsored. In part, these people are correct for today, Livingston seems to be still "in search of" an identity that will differentiate its campus from the campuses of the other colleges at New Brunswick. Prior learning assessment is still listed in the catalogue but according to the Dean's office virtually no one has applied for credit in years. If prior learning assessment was under utilized in the Livingston experiment then it is now non-existent in the re-defined more traditional looking Livingston of 1987.

Prospects

Livingston's experience with prior learning assessment motivates me to make three points about the future of this option:

1) Whether conducted within an experimental or traditional college, prior learning assessment's goals and objectives must be clearly delineated and its outcomes systematically reviewed and evaluated. Its role in the college must be forcefully stated, and advertised. It cannot be seen by the public as a less rigorous way to earn credit and as such limitations in the number of credits awarded must be maintained. (Too often students at Livingston were hypothesized to have received an inordinate amount of credit.)

2) Methods for awarding credit in professional majors e.g., business studies should be investigated and implemented. As Livingston students in the 1980's turned more to business studies, prior learning assessments decreased probably in large measure to disparities among how departments viewed the applicability of prior learning to the extent possible, guidelines for awarding credit across departments should be standardized. Students should not, as was perhaps the case at Livingston, petition the same departments for credit because of prior knowledge that certain departments will treat students petitions more favorably.

3) Deadlines for the submission of documentation to substantiate prior learning experiences must be enforced. Students should not be allowed to petition Deans and departments at "the last minute" before graduation, for example to have prior learning experiences evaluated for credit. Unfortunately, most of the other colleges in the New Brunswick federation felt that Livingston College too often ran afoul of these regulations.

In conclusion, Livingston College searches for an identity that would clearly differentiate it from the other New Brunswick colleges. While the college values its pluralistic community, there is little else that distinguishes the Livingston College of 1987 when comparing it to Rutgers College (now co-educational), Douglass College and University College. The Provost says, that Livingston's mission now transformed from the experimental days of the 1960's "is in a state of becoming". What mission the college may adopt remains to be seen. Prior learning assessment, however, provides an excellent vehicle for the college to more clearly delineate its differences from both Rutgers, Douglass and University College. For example, it could be of tremendous benefit for the many students who take leaves of absence, who major in business or who present the results of other credit awarding systems such as C.L.E.P., and Advanced Placement. No doubt prior learning assessment cannot become the only means by which Livingston College enacts a new and responsive mission but it can become a catalyst for such an endeavor particularly in light of the preponderance of Livingston students who are mature and who represent working class orientations. A bright future for prior learning assessment rests upon avoiding the pitfalls and mistakes of the past and upon projecting its use as a viable and useful tool for rewarding students for what they have accomplished in life.

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ASSESSING PRIOR EXPERIENTIAL LEARNING ON A SHOESTRING

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The University College at Memphis State University was created in 1976 as something of an experiment in education. The notion of individualized degree programs was not a new one, but in the setting of a large, urban university in the Mid-South it represented a dramatic departure from traditional approaches to education. The Committee which researched and developed the College had as its goal the formation of an arena for flexible scheduling, creative course development, testing grounds for new majors, various options for credit and alternative routes to a degree. From the very start the people who planned University College intended to focus on ways for adult students to have greater access to higher education and on ways to allow these students opportunities to build on things they already knew. The University College, thus, was born with the concept of awarding credit for prior experiential learning as one of its cornerstones.

As the designers of the College began their early efforts to pull together the results of their studies of other programs and educational approaches there was ample financial and institutional support. Financial support came through a grant from the Fund for the Improvement of Post Secondary Education, and institutional support was made evident by the commitment of the University which allowed the committee to devote time and energy to this project. The deliberations of the planning committee resulted in a University College which allowed students to design individualized, inter-disciplinary degree programs within the structure of a baccalaureate contract. Within the framework of a program replete with checks and balances to insure academic quality, students would have the option to include CLEP credit, transfer credit, credit for internships or independent study and credit for prior experiential learning.

One basic element of these individualized degree programs, and one which was and is crucial to the inclusion of prior experiential learning, is the formation of a contract/advising committee for each student. Students must be working toward degrees which are inter-disciplinary in focus, and so have as faculty advisors at least two faculty members, with each representing one of the academic areas incorporated into the degree program. There are carefully structured procedures for designing

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the degree, for seeking approval of the degree and for the culmination of the degree as evidenced through a nine-hour, synthesizing special project. All of this requires close contact between the student and the advising committee. This relationship becomes the base upon which a decision is made about whether the student will include prior experiential learning as part of the degree program. Faculty members who are serving on contract/advising committees then, will of necessity, begin discussions with their advisees about the possible relationship between the academic goal and work, travel, volunteer efforts and other avenues which may have led to learning comparable to college level learning. If the experiences do seem to apply to the student's academic goal, then a decision may be made to begin the development of a portfolio to document those experiences and sift out the learning which has resulted from them.

The importance of a good, close advising relationship, then, is necessary both in the designing of a well-conceived and carefully formulated baccalaureate contract, and in the decision about, and the construction of, a portfolio for prior experiential learning credit. Faculty members who chair students' contract/advising committees receive a $400.00 stipend when students complete their special project, but this fee is small in comparison to the amount of time and involvement which usually goes into the formation and completion of a degree program in University College. Why then is there a ready pool of advisors for these students, and why do many of these same advisors also agree to assess portfolios for credit for prior experiential learning--in spite of the fact that the program is run on a shoestring?

First, advisors are recruited from faculty members who have an understanding of and interest in promoting non-traditional learning and academic approaches. They may be people who were among those who designed the University College, they may be faculty members who have created and taught interdisciplinary courses for the University College, they may be faculty members whose department chairpersons or fellow faculty members have given them positive reports about the College and its students, or they may be faculty members who, upon learning about the philosophy and format of the College, feel that this is a desirable approach to education. One of the richest sources for advisors is found in faculty members who have heard from their peers about how rewarding it is to work with University College students. Teachers praise these adult students for their sense of commitment, their maturity, their high degree of motivation and their sense of excitement about learning. For many teaching in a large, urban state university the chance to interact with such students is rare, but highly desirable. Reports come back about the gratification to be found in aiding students who are in school to learn, who bring not only a wealth of life experience to the college setting, but who also bring to their studies a keen appreciation for the opportunity to finally earn a degree, and to earn a degree that suits their needs.

Once faculty members have agreed to serve on a student's contract/advising committee they are invited to an orientation session for advisors. These sessions are conducted by the dean, the associate dean and the college advisor on a rotating basis and are offered each term. These sessions discuss the University College requirements, the designing of the baccalaureate contract, the development and assessment of portfolios for prior experiential learning and other issues of concern to advisors. Often an experienced advisor will serve as a resource for these orientations and will be able to answer questions based on work with a number of University College students. Advisors learn what is expected of them and what they should expect of their students. They also are reminded that the professional staff of the college is available and eager to provide assistance and direction whenever there is a need.

During the meeting, handbooks for advisors and for the development and assessment of prior experiential learning portfolios are distributed and discussed. Advisors raise questions which may seem unique to their situation but the discussion and answers often provide valuable insights for all advisors. The voicing of concerns may lead to procedural changes or new activities in the University College in response to certain issues. Materials used by the College are rewritten or expanded for greater clarity when advisors suggest revisions are needed. The creation of a new advisors' handbook was undertaken upon the recommendation of advisors and their contributions were vital to it. An award for excellence in advising was the result of an idea expressed at an advisors' orientation, and the guidelines for prior experiential learning were researched and re-formulated at the request of advisors.

The relationship between student and advisor and between advisor and the University College is underlined here and demonstrates one factor which is so crucial to the success of all facets of the College. Faculty members working with students learn of difficulties found in understanding materials or procedures. These difficulties are expressed by faculty members to University College professional staff and solutions are sought. Also, students may describe problems to the University College staff, which will then seek ways to correct these problems and possibly also convey them to faculty advisors for suggestions about ways to improve the process. Thus, an ongoing three way dialogue among students, faculty and University College staff provides for continual review and up-dating of materials, policies and procedures.

Prior experiential learning portfolios are also the result of these kinds of dialogues. Students' conversations with their advisors and referrals back to the college advisor determine whether portfolios might be an appropriate avenue for credit. Contract/advising chairmen do not assess their own students' portfolios, but they become familiar with the process and they become involved in the concept of experiential learning through their own advisees. As a faculty member helps his or her student to create a portfolio the ingredients are present which will help prepare that faculty member to assess another student's protfolio. And discussions with the college advisor will provide clues for the advisor when the selection of an assessor becomes necessary.

The college advisor's function, then, becomes much more than that of providing information about college and university requirements. This person must serve as liaison between student and faculty, between the college and the student and between the college and the faculty. The Dean and Associate Dean also act as resource persons to faculty and students. The three professional staff members in the University College must all be available to give information and assistance to both students and faculty, and they must also be the sources of referrals among the various areas of the university. Personal contact with faculty members is a vital element in the fulfillment of the college's mission. These professionals are involved in daily interactions with faculty members to seek their involvement in the many facets of the program. As was mentioned earlier, faculty must be recruited to teach courses, to serve as advisors to students and to assess portfolios for credit for prior experiential learning. Often this means that the process must be explained and its existence justified. A strong sense of dedication and conviction about the value of the concept of University College pervades the approach of the University College professional staff and obviously communicates to others. The fact that there are presently 195 faculty members serving as advisors to University College students proves that many people are likewise convinced of the efficacy of an individualized degree. Each year about fifteen different faculty members assess portfolios for prior experiential learning credit. They may require several weeks to carefully read and evaluate a portfolio, then spend additional time in one or more interviews with the student. Each individual assessment is rewarded with a check for $45.00. Needless to say, assessors do not do this for financial incentives.

Many long hours also were spent in the early years of the college as faculty members assessed areas of learning for groups of students who would be coming through the University College. Assessments were made and put in place for aviation licenses, health care fields credentials such as those found in the areas of nursing and radiologic technology, alcohol and drug abuse counseling certification, nuclear industry, printing, and fire service training. Now students with a background in any of these fields may get a pre-determined amount of credit upon presentation of a notarized copy of the appropriate certificate, license or other document. However, this is possible only because of the thorough assessments which were made earlier.

Faculty members continue to be available to spend the time and effort required to assess portfolios. They even give additional time to University College by appearing at portfolio development workshops in the evenings or on Saturdays. Since their rewards are not monetary in any real sense, their devotion must stem from their commitment to education. Perhaps they find a sense of gratification from their involvement with the special students they serve. Maybe they feel that a part of the ideal mission of education is fulfilled in a process that recognizes that learning may take place in many settings and in a variety of methodologies. It is possible that they feel that the development of a portfolio is a learning process in and of itself, and that the successful completion of such a project is worthy of reward. It could be that by becoming invloved in a non-traditional mode of learning they feel a sense of achievement in broadening the parameters of education. Another explanation could be the satisfaction that results from helping a student reach his or her academic goal and the resulting conviction that one more person has seen the value of education.

Whatever the motives are for the success of the University College assessment program and they are as varied and complex as the individuals invloved, it is clear that students and faculty feel that the program is necessary and worthwhile. Students develop portfolios to earn credit, of course, but they embark on this tedious, demanding task because they have the guidance and support of dedicated advisors, because they feel that they have accurate, clear information via the Handbook for Prior Experiential Learning and the portfolio development workshops and because they have the assurance that they can get additional assistance from University College staff members. The small size of the staff does not prevent it from being available, knowledgeable and supportive far beyond what one might expect from a three-person professional staff. Even clerical staff members in the University College seem predisposed to be especially courteous and helpful.

Faculty members advise students, teach classes and assess portfolios for University College. They perform all these functions even though they are busy people and the financial rewards are small. The faculty at Memphis State University is not unique. Every educational institution in this country has faculty members who are committed to the exploration of new and exciting avenues of learning, who believe that education is meant to enhance, not limit, opportunities, and who are convinced that assisting a student to learn what he or she needs to know and guiding that student toward the accomplishment of an academic goal is great reward in itself.

Any institution of higher learning can identify and utilize such faculty and staff members. Form a committee to develop a program of innovative techniques and there will be a core of proponents and practitioners of such approaches. Offer faculty members a chance to become involved in these processes and to work with these highly motivated, mature students and there will advocates for adult students and for special programs to serve them. Feel strongly and positively about these activities and the enthusiasm will be contagious. A shoestring is not a sufficient support for a good program for assessing prior experiential learning, but when it is added to a dedicated, capable staff, a nucleus of faculty members willing to break with tradition and a supply of students who bring with them skills, experience and a zest for learning, then you have the necessary ingredients for a successful program.

ASSURING QUALITY THROUGH LEARNING CONTRACTS
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Critics of non-traditional education often raise the specter of degree mill when they refer to educational models that do not use the traditional campus classroom based structure. Rather than being defensive about non-traditional education, however, I believe we can encourage practices which are, if anything, superior to ordinary classroom instruction.

One such practice is the use of contract learning as a means to ensure quality in non-traditional education. The learning contract is an educational tool which allows both the students and the institution to know exactly what was learned in a specific course and to be assured that competency was reached in a stated number of areas. The quality of learning is agreed upon by both student and teacher and is guaranteed through the completion of the contract itself.

What do we mean by quality education? To some degree, it is a buzz word. Do any schools admit that they do not provide quality education? Can educators agree on what constitutes quality? For the purposes of this paper, I use the word quality to denote learning which forces the learner to think critically, to acquire skills at a high level of competence, to probe in depth into the topics being studied, to integrate the new material into her personal experience and knowledge, and to re-examine her values in the light of the new information acquired.

Malcolm Knowles theorizes that the conceptual roots of contract learning go back to the theory and practice of independent study that arose in this country in the 1920's, stimulated by the philosophy of John Dewey (1986). While in the next few decades some colleges tried out various forms of independent study, it was not until the 1960's that experiments and research in self-directed learning by various researchers and by the consortium known as the experimenting colleges and universities provided proof that such learning was effective. A researcher who summarized this research concluded, "to be most effective, instruction must be tailored to the needs, capabilities and histories of the individual learners" (Knowles, 1986).

The concept of self-directed, independent learning was found to be particularly effective with adult learners because it was most congruent with their needs and learning style. At some point, what seems to have occurred is that some faculty member supervising independent study devised a simple form of a learning contract as a written agreement between themselves and the student. The idea spread because it was such a perfect solution for self-directed study. Now it is is utilized not only in non-traditional institutions of higher learning but also in traditional classrooms, professional training courses and in clinical placements.

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What are the theoretical underpinnings of learning contracts that contribute to their usefulness as a means of ensuring quality in non-traditional education for adults. First, an adult learner usually starts out with a need to know something. Adults are in school for a purpose and they want their learning to be relevant to their goals. The learning contract allows the learner to spell out precise learning objectives--what does she want to know. Secondly, the adult learner has a need to be self-directed in her pursuit of learning. The learning contract allows the learner to choose the specific educational experiences she will employ to realize her learning objectives. Third, the adult learner brings a wealth of prior experience and knowledge to the learning situation. The learning contract allows her to choose learning objectives and learning experiences which take that experience into account and validate it. It is a way of individualizing the learning situation so that it is meaningful to the learner, particularly when that learner is an adult.

A learning contract then, is a written agreement between a learner and a teacher or mentor as to what will be learned, how it will be learned, how the learning will be documented, how it will be evaluated and when the learning will occur. The contract is usually negotiated between the individuals and is signed when everyone is comfortable with the agreed upon terms. Then it becomes the learner's responsibility to fulfill the terms of the contract in the stated time in order to receive credit for the learning.

At The Union for Experimenting Colleges and Universities (hereafter UECU) where contract learning has been the mode of its undergraduate program since its inception in the mid 1970's, all courses, whether new learning or prior, are handled by means of learning contracts (we call them learning agreements). During the first quarter of learners' enrollment, they take a workshop which teaches them how to develop learning agreements. First they learn how to write good learning objectives. They are taught, for example, that the verb "discuss" is anathema as a learning objective since it is totally non-measurable. We often do a parody of a learning agreement for a course called music appreciation in which the first learning objective listed is "I am able to appreciate music." How will you demonstrate that, we ask with a smile. Will you swoon as the first bars of Mozart are played in the concert hall?

Then we explain carefully what some of the possibilities are for learning experiences, but do not limit them in their choices, of course. They learn what constitutes the typical documentation for a college course and how much might be expected in any particular course. We describe the usual types of evaluation that are used although for every course we have a requirement that the learners do a self-evaluation in addition to that done by the faculty mentor. We usually have them write some sample learning agreements based on some learning they have already accomplished in their life so that they can begin to understand not only the structure of the agreements, but their evolution and philosophical base.

We are convinced, through many years of working with learning agreements at UECU, that it is an excellent way to ensure quality in our degree programs. Let's start wtih the learning objectives. They have to be stated in a precise and measurable terms: for example, at the conclusion of this course in American history I will be able to define what is meant by the terms states rights, manifest destiny and the separation of powers. When I taught in traditional universities, I might have my own learning objectives for what I taught, but I was never able to define exactly what is was my students retained when they left the classroom at the end of the course. Since 65 was a passing grade, they might know two thirds of the material which I had asked on an exam. But since they had no choice in what they learned, they might quickly forget the two thirds they had memorized for the exams simply because it was of little interest to them. Under contract learning, the learner sets out the specific material she plans to learn. The chances are that her retention of the material will be enhanced by her interest.

Let me add that this choice is not entirely open-ended. In a learning agreement for american history, for example, there might be some basic concepts which the faculty member feels it is appropriate for the learner to grasp. But the particular number of concepts and the context in which they would be acquired would be something in which the learner would exercise choice, and through which her interest in the material would be enhanced.

Most of you in this room are no doubt familiar with David Kolb's model of experiential learning. Kolb illustrates how the cycle of active experimentation, reflective observation, abstract conceptualization produce learning. The UECU learning contract is a mechanism for this experiential sequence to occur. The learner has to appropriate the material to be learned in her own manner--through reading, observing, participating, creating. She has to abstract that learning in order to document it in the manner she has chosen. She also has to reflect upon that learning in order to produce her documentation and to write her self assessment.

Contract learning is a method to ensure quality learning because it specifies exactly what it is the learner has learnt. The faculty mentor in negotiating the contract with the learner can thus control the amount and type of learning that will take place. There are no places to hide, so to speak, as there are in a traditional classroom. The learner has committed herself to learn a given amount of material, of concepts, ideas, theories, etc. The evaluation at the end of the course is based on the learner's mastery of what she said she planned to learn. That makes evaluation more of an objective and verifiable process; another way to control quality. If the learner does not live up to the terms of the learning contract at UECU then she receives an unsatisfactory and has to repeat the course or, in some cases, takes an incomplete and has a specific amount of time to complete the work. Since we do not give grades at UECU we do not credit partial learning with a C or D grade. The learner has either fulfilled the terms of the contract and it is satisfactory or she has not and it is unsatisfactory. This system makes it easy to know exactly what the learner has accomplished as she prepares to graduate.

Many non-traditional and especially external degree programs use prior learning as a way to assign college credits to the learner. At UECU we use the learning contract for prior as well as for new learning, and again, it is a way in which to assure quality. For every prior learning course for which learners want to receive credits, they fill out a learning contract which details what they learned, in what modalities the learning occurred, how they will document what they learned and how they plan to be evaluated.

The faculty member who does the evaluation then has a clear and careful delineation of what the learner expects to receive credit for and how she plans to prove that she has accomplished the learning. Nothing is left to chance; everything can be documented for assessment. If the faculty member does not feel that the amount of learning claimed is adequate for credit requested, the learning contract can be amended to lower the number of credits to be assigned, or the learning contract can be rewritten to include more substantial number of learning results.

One of the most important elements of education for adults is making it possible for them to integrate what they are learning and apply that learning to life's problems. Because the learning contract allows the adult learner to choose those elements which lend themselves to integration and those issues with which they are personally concerned, the entire learning enterprise is meaningful and commands their attention. The result is quality education then, not only because of the nature of the learning contract itself, but also because of the spirit with which the learning is undertaken. I believe that those of you who have not yet worked with learning contracts will find them an excellent tool for the nontraditional program.

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USING EXPERIENTIAL LEARNING TO PREPARE COLLEGE ART STUDENTS FOR CAREERS

(BY THE WAY, THEY HAPPEN TO BE DEAF)

Michael L. Krembel
John W. Cox

Introduction

Until only recent decades, higher education has traditionally been available to a select group of learners. With few exceptions, college campuses were inhabited by 18-22 year-old, predominantly white, middle-to-upper income students who were perceived as having a reasonably good chance for academic success [2]. Normally, this "reasonably good chance" included some sort of expectation that the student would be free of handicaps which might interfere with the learning process.

The influx of returning World War Two veterans brought change to this historic ideal of the college student. Change continued to be evident in the press for excellence of the 1950's and in the demands for reform which characterized the 1960's. Throughout these years, higher education was being challenged to re-think some of the traditional assumptions about who should or should not have access to a college education [1, 2].

The hearing-impaired population of the United States represented another challenge to these traditional assumptions. Interest grew within the Congress and in 1965, President Lyndon Johnson signed a law which would enable hearing-impaired young people to become part of the mainstream of the college population. This was the creation of the National Technical Institute for the Deaf (NTID). Today, NTID is one of the nine college of Rochester Institute of Technology (RIT) in Rochester, New York. Approximately 1,300 deaf students are part of a total campus population of roughly 10,000.

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Having achieved the goal of mainstreaming within a university, the primary challenge remains: to mainstream hearing-impaired graduates into the workplace ~~and~~ society at large. History has demonstrated that hearing-impaired individuals are fully capable of achieving professional competence, but they often confront obstacles in: (1) communicating effectively, (2) adapting to social norms in the workplace, and (3) overcoming stereotypical attitudes toward deafness.

Students in NTID's Applied Art Department matriculate through a three-year Associate degree program which is designed to prepare them for employment as professional production artists. Having mastered the necessary visual and technical skills in the first two years of the curriculum, students enter a third year which is largely experiential.

Graphic Applications I, II, III

This course sequence combines all the skills learned during the first two years of the program and, as the title of the course suggests, applies them to real client-based projects with the intent of developing professional competence as a production artist (mechanical artist, pasteup artist, layout artist). Although design skills are not stressed, students are encouraged to develop them to their full potential since employment in professional areas of applied art may require some design.

The course is self-paced, individualized, experiential, and team-project oriented.

Self-pacing allows each of the students to develop at a rate of learning which is consistent with their individual ability to comprehend and process information. The only limitation with self-pacing is "the deadline for a specific project." This is necessary for the management of the class and as a requirement of a client. Although deadlines are imposed, they are flexible enough to allow self-pacing to function as a meaningful, academic experience.

Individualization promotes the concept of learning whereby students enhance their strong skills and develop their weaker ones. If a student shows an above average ability to draw, an illustration or rendering project can be assigned to apply that particular skill. On the other hand, if a student has average or weak skills in drawing, the same project could be assigned to strengthen that particular skill. At the same time, other students in the class could be working on totally unrelated projects, emphasizing layout or perhaps pasteup skills. Concentration on learning focuses on the individual and his/her particular needs.

Graphic Applications is "experiential" since it duplicates work experience evident in the professional studio. "Clients" from the NTID/RIT community, the city and county and in some cases the country, provide the projects which are used in the curriculum structure. The projects or "jobs" range from simple one-color flyers to posters, annual reports, invitations, newsletters, etc. The "jobs" are real and will eventually be printed. The clients are charged for materials (typesetting, mechanical boards, paper, overlays, etc.) and in most

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cases are responsible for printing costs. In return, the student is given academic credit as well as the mechanical and printed work for his/her portfolio. Deadlines, client interviews/presentations, interaction with the art director (the instructor), time management/job ticket execution (see Appendix A), and portfolio preparation are characteristic of this class.

Team-project orientation is a concept very evident in the applied art field. Many times large projects require a number of artists to work on similar or different tasks which are part of the same project. In Graphic Applications, a student could be assigned to layout the job, another student could prepare the mechanical boards, another copyfit/"spec" type and another pasteup the mechanicals. This approach fosters personal/social growth, maturity, respect/consideration, and a professional sense of cooperation which is necessary for a studio to function.

Background

To implement work-oriented relationships, the instructor previously had to employ a system using "canned jobs" which were originated by him, (i.e. thumbnails, roughs, type specifications, etc.) Although these jobs were realistic in nature and varied in complexity, they were still simulations. Client contact was non-existent in the real sense although it was simulated by faculty input. Student output was fair to good with the more skilled students exhibiting the most growth. The less skilled students improved their performance to job-entry level by the end of the third quarter. Portfolio refinement was evident with positive evaluation by the Applied Art faculty, the Applied Art Advisory group and professionals in the field who conducted practice interviews with the students.

On the negative side, since "canned jobs" were used by all students, there was much duplication in the portfolios. Deadlines for various functions of a job lacked the "impact" of a real job situation. Although the instructor could deduct points from a student's grade if a deadline was not met, the outcome was far more academic than it was detrimental to the job process. The sense of responsibility students exhibited for their actions, job functions and eventual portfolio pieces, varied across the board. The most significant positive acceptance of responsibility occurred near the end of the third quarter, just prior to graduation.

Before 1984, the Applied Art department had operated an "In-House Co-op" work experience which was organized on a casual basis. As a result of the Rubella epidemic in the early 60's, the department was faced with an increased number of hearing-impaired college students. In order to accommodate these numbers, it was decided to infuse the "In-House Co-op" into the Graphic Applications course. Since the Co-op experience involved real jobs and deadlines, it was felt that the objectives set forth in the Graphic Applications course would be better met and subsequently, the needs of the Applied Art students better served. Furthermore, the Applied Art Advisory group, comprised of-professionals in industry and education, had suggested that a "co-op experience" be mandatory for all students. By infusing "In-House Co-op" into Graphic Applications, the department ensured the fact that all students would experience a co-op situation for at least 3 quarters of their program.

The procedural operations of the "In-House Co-op" had to be modified since students were on an hourly payroll schedule. The Graphic Applications class is a five credit-hour course and it is academically illegal for a student to earn credit toward a degree and receive pay at the same time. It was decided to drop the payroll schedule, charge clients for materials/supplies and require clients to return mechanicals and printed samples to the students for their portfolios.

Evaluation Procedures

Ideally all projects in the class should be real; however, many times there isn't enough work to distribute to all students. When this happens, "canned jobs," or jobs which will not be printed, are assigned by the instructor to fill the void. Students execute the "canned job" from layout to mechanical in the same professional manner they would execute a "client-oriented job." The differences are that the job is not printed and the student must pay for materials used.

Evaluation occurs after each project is completed and is recorded on a Graphic Applications Evaluation Form (see Appendix B.) Client-oriented jobs and canned jobs vary with respect to the number of skills evaluated; therefore, a special chart (see Appendix C) indicates the number of points earned for each skill evaluated which is translated into a letter grade of A, B, or I (incomplete). Grades below B, (i.e. C, D, F) have been eliminated from the course since skill evaluation recorded at that level would indicate less than professionally acceptable standards.

The grade "A" indicates a high level of skill proficiency which meets the standards established in the industry.

The grade "B" indicates an acceptable level of skill proficiency with a need for some minor adjustment(s).

The grade "I" indicates an unacceptable level of skill proficiency with a need for adjustment(s).

The minimum number of projects for any given quarter is five (5), there is no maximum. Five projects must be completed to receive a grade of A or B. Anything less than five completed projects results in an incomplete grade (I).

Projects resulting in a "B" grade can be upgraded a maximum of two (2) times to achieve an "A" grade. If after two attempts, no significant improvement is noted, the grade remains a "B".

Projects resulting in an "I" grade may be upgraded as many times as necessary to achieve a grade of "A" or "B".

Students are assigned various projects with different degrees of complexity. Client-oriented and "canned" projects are distributed in a way to ensure that all students have an opportunity to include printed work in their portfolios.

Observations

1. Initially, the instructor planned on scheduling 10 jobs for the first academic year in which the experiential component was operational. In reality, he scheduled and the students produced 30! He was amazed at the productivity exhibited by all students. Attendance in class improved drastically compared to past years. (During winter quarter, 7 students were registered for the class which met 10 hours a week for 10 weeks. 5 students had perfect attendance for the 10 weeks and 2 students missed 1 day of classes for a total of 7 hours each. In both cases, the students made up the time on a weekend which was in addition to working in the studio during non-class weekdays/weeknights.) Each of the 7 students spent an average of 15.50 hours in the studio compared to 12.25 hours spent by students the previous year. Although the instructor encouraged students to use the facilities during non-class time, it was not mandatory, so these increases reflect increased initiative on the part of the students.

2. Affectively, students improved in their attitudes and values by exhibiting an increased sense of personal worth and self-confidence, interpersonal communications, responsibility, initiative, capacity for adapting, as well as improved group interaction skills and social attitudes. Compared to previous groups of students, this group exhibited enthusiasm about their activity in the studio. There was a genuine interest in each others' work. Team approaches to solving similar tasks by two or more students was very much in evidence throughout the year. Petty disagreements and similar immature behavior diminished greatly. A quasi-professional acceptance of each others' strengths/weaknesses and the ability to work together under controlled stress was very evident.

3. Cognitively, students improved their communication skills, knowledge of group interaction processes and knowledge of decision-making skills. Technical vocabulary/terminology was used with great regularity/accuracy which was not the case in past years. Practice interviews conducted in the students' Employment Seminar class indicated a high level of understanding with regard to mechanical production, typography, printing methods and artist/client communication.

4. Psychomotor skills improved with respect to hand/eye coordination, accurate "comp"/mechanical production and equipment/machine usage. "The quality of all work is comparable to professional standards", was expressed by a professional art director conducting the students' final mock interview in Employment Seminar class.

5. Career placement for graduating students in each of the three years since the inception of this special program, has been 100% successful. Although other curricular factors share in this success, it seems reasonably clear that the experiential component of Graphic Applications was (and continues to be) a major factor. This experience allows students to bring closure to their academic efforts and become ready for the challenges of the working world.

Employment Seminar

A second experience in the third year is a course called Employment Seminar. This three-quarter sequence develops skills in resume preparation, job search techniques, and interviewing. The experiential component occurs specifically with the job interviewing experience. Over the span of three academic quarters, students have at least three interviews that are videotaped, and two other off-campus interviews. The first of these five interviews is with one of the students' art instructors; the remaining four are with professional art directors who are unknown to the students.

This approach is designed to assist the student in gradually becoming comfortable and confident in an interview situation. In point of fact, any individual is likely to feel intimidated by the presence of cameras, lights, and television production activity, especially when it is coupled with the pressure of a job interview. For this reason, the student's first interview is conducted with one known commodity: an instructor from the student's major. Each successive interview situation becomes slightly more demanding, eventually culminating in an off-campus interview that the student arranges completely on his/her own.

Evaluation of these interviews consists of two phases. First, the student's success is evaluated by either the instructor or the interviewer. In the case of on-campus videotaped interviews, the instructor directly observes the process and records the results on an evaluation form. In the case of off-campus interviews, a telephone follow-up is utilized, with the evaluative comments being recorded on this same evaluation form. Secondly, the student is responsible for completing a self-evaluation. This is accomplished utilizing an evaluation form which mirrors the form used by the instructor (see Appendix D).

When both written evaluations are complete, the student and instructor meet to compare their independent evaluations, discuss the interview, and agree upon areas needing improvement in future interviews. In the case of videotaped interviews, the student-instructor conference includes a review of the tape. Also, tapes are often reviewed in class so that students may benefit from the insights of their peers. The primary emphasis in the interview process is on the student's ability to identify his/her own strengths and weaknesses, and this is reflected in the evaluation criteria for the project (see Appendix E). This process is emphasized more than the student's ability to have a good interview, although in the final analysis, a competent interview _is_ the desired outcome. The interviewing experience, as part of the Employment Seminar course, benefits from the involvement of not only a faculty member from the major department, but also an employment advisor from the Placement Office. This team-teaching arrangement helps to ensure that students gain the broadest possible understanding of the dynamics of the interviewing/job search process.

Summary

The two course experiences described here can be described as mutually supportive components of a "finishing-off" year for hearing-impaired students in the Applied Art Department. The Graphic Applications course prepares the student to function as a working professional. The Employment Seminar experience prepares the student to "market" his/her skills so as to secure appropriate, satisfying employment.

The application of experiential learning provides a necessary "bridge" between the world of classroom instruction and the world of work [3]. The evaluation of this experiential learning is critical to the student's understanding of both the processes and the products of the experience.

From all available indications, the experiential components described here are highly useful in preparing students to embark on successful careers. As indicated earlier, the career placement rate for Applied Art graduates has held steadily at 100% for each year since these strategies were initiated. Perhaps the most important implication of this single statistic is that it represents a definite and significant step toward the goal of "mainstreaming" of hearing-impaired individuals into the professional career marketplace.

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Appendix A

GRAPHIC
APPLICATIONS

Job Ticket

NTID APPLIED ART DEPARTMENT One Lomb Memorial Drive Rochester, New York 14623 (716)475-6376

DESCRIPTION

JOB NUMBER ____________________ DATE RECEIVED ____________________

CLIENT ____________________ DATE DUE ____________________

ACCOUNT NUMBER ____________________

ARTIST/DESIGNER ____________________

SPECIFICATIONS

PRINTING

SIZE ____________________ SOURCE ____________________

STOCK ____________________ QUANTITY ____________________

INK COLOR ____________________ COST ESTIMATE ____________________

TYPESETTING ____________________

BINDING ____________________

SUPPLIES

PHOTOSTATS ____________________ COST ____________________

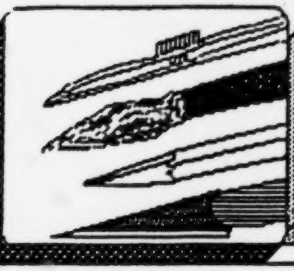
TYPESETTING ____________________ COST ____________________

MATERIALS ____________________ COST ____________________

SUPPLY COST ____________________

***TOTAL COST** ____________________

CLIENT APPROVAL ____________________



GRAPHIC APPLICATIONS 311, 312, 313

Name____

Evaluation: job number______________________________

PERFORMANCE SKILLS

	NA	0-1	2-3	4-5
LAYOUT/DESIGN 1-Executed thumbnails/roughs/comps in a professional manner.				
2-Utilized basic design skills to develop the layout.				
3-Followed layout/design specifications.				
MECHANICAL PREPARATION 1-Prepared mechanical(s) in a professional manner: a) base art (guidelines, crop marks, register marks, ink specifications/special instructions.)				
b) overlay(s) (acetate, zipatone, rubylith/amberlith, register marks, ink specifications/instructions.)				
c) color break tissue/flapping.				
d) inking (special rules, illustration, keylines, etc.)				
e) photostat(s)				
f) copy/headlines (copyfitting, letter/word/line spacing, type selection, typesetting equipment).				
TIME MANAGEMENT 1-Satisfied deadline(s) for the project.				
2-Utilized studio time in a productive manner.				
3-Utilized non-studio time(free time) in a productive manner.				
COMMUNICATION 1-Recorded an accurate list/cost of materials used.				
2-Communicated (expressive/receptive) clearly with the art director concerning project requirements.				
3-Communicated (expressive/receptive) clearly with the client during interview(s)/presentation(s).				
PERSONAL/SOCIAL CHARACTERISTICS 1-Interacted with the art director, client and other students in a professional manner.				
2-Demonstrated a mature attitude during studio activity.				
3-Worked well under pressure (deadlines, equipment availability, etc.)				
4-Exhibited enthusiasm and motivation in the studio.				

# OF SKILLS EVALUATED	POINTS EARNED		
	A	B	INC.
1 skill	5	4-3	2-0
2 skills	10-9	8-6	5-0
3 skills	15-13	12-9	8-0
4 skills	20-17	16-12	11-0
5 skills	25-21	20-15	14-0
6 skills	30-25	24-18	17-0
7 skills	35-29	28-21	20-0
8 skills	40-33	32-24	23-0
9 skills	45-37	36-27	26-0
10 skills	50-41	40-30	29-0
11 skills	55-45	44-33	32-0
12 skills	60-49	48-36	35-0
13 skills	65-53	52-39	38-0
14 skills	70-57	56-42	41-0
15 skills	75-61	60-45	44-0
16 skills	80-65	64-48	47-0
17 skills	85-69	68-51	50-0
18 skills	90-73	72-54	53-0
19 skills	95-77	76-57	56-0

Appendix D

STUDENT'S EVALUATION OF INTERVIEW

Name ____________________

Employer ____________________

Address ____________________

Telephone ____________________

Date of Interview ____________________

Punctuality

Poor	Fair	Excellent
0	1	2

1. Was I on time for the interview?

____ minutes early ____ right on time

____ minutes late ____ did not show

Introduction

Poor	Fair	Excellent
0	1	2

2. Did I introduce myself at the beginning of the interview?

____ yes ____ no

____ Employer had to encourage introduction.

Dress

Poor	Fair	Excellent
0	1	2

3. Was I dressed appropriately for the interview?

____ yes ____ ok - acceptable ____ no

____ business wear (slacks, skirts, dresses, etc)

____ casual wear (jeans, sneakers, etc)

Communication Needs

Poor	Fair	Excellent
0	1	2

4. Did I explain my communication needs?

____ yes ____ no

____ Employer had to guess.

5. How did I communicate during the interview?

____ speech ____ sign

____ writing ____ combination

Portfolio Presentation

Poor	Fair	Excellent
0	1	2

6. Did I explain my portfolio well?

____ yes ____ no, not at all

____ yes, but had problems

Answers To Questions

Poor	Fair	Excellent
0	1	2

7. Did I have good answers to both technical and typical interview questions?

____ yes ____ no, not at all

____ yes, but had problems

8. Which word or words describes me? (Check all that apply)

____ enthusiastic ____ passive

____ warm ____ participatory

____ shy ____ at ease

9. Did I ask questions?

____ yes ____ no, not at all

Overall Rating

Poor	Fair	Excellent
0	1	2

10. Overall impression of the interview:

____

____

____

____

____

			POINTS
1.	Interview is completed	5	___
		0	
2.	Student's self evaluation:		
	-correctly identified all weaknesses in interview........	10	___
	-identified most weaknesses.....	9	
	-identified a few weaknesses....	8	
	-did not identify any weaknesses	0	
3.	Instructor's rating form:		
	-total points = 13 - 14.........	5	___
	11 - 12.........	4	
	9 - 10.........	3	
	7 - 8.........	2	
	less than 7.....	0	

TOTAL POINTS ___

maximum = 20
minimum = 17

MANY ROADS LEAD TO ROME
(Acquiring College Credits Through Experiential Learning)

Theresa A. Lewis

> "...the resource of highest value in adult education is the learner's experience. If education is life, then life is also education. Too much of learning consists of vicarious substitution of someone else's experience and knowledge. Psychology is teaching us, however, that we learn what we do and that therefore, all genuine education will keep doing and thinking together...Experience is an adult learner's living textbook." [1]

Today, numerous diverse alternatives are available to the returning adult students which enable them to meet academic requirements while honoring the vast experiences inherent in their backgrounds. Many researchers have long recognized that the "blended life plan" is the growing trend...school, work, school, work and so on into retirement. Several factors are contributing to this pattern:

1. job obsolescence - new skills development for individuals becomes mandatory or voluntary.
2. increased participation of women in the job market.
3. increased longevity.
4. job competition - need to gain a substantial edge on peers.
5. Higher work aspirations among many groups.
6. social acceptability of career change.
7. portability of pension plans. [2]

A multitude of institutions of higher learning now accepts the non-traditional students' work and living experiences as deserving of recognition and, thus, often meriting college credits. So many adults have "lived" Accounting 101 or Introduction to Computers; have owned and operated their own businesses and therefore, could probably "teach" basic Marketing themselves. Why compel such thirsty learners to become bored, frustrated or even discouraged even to the point of abandoning education all together?

Who are these adult learners seeking concrete affirmation of their past achievements? Knowles sees them as individuals performing social roles typically assigned by our culture to those it considers to be adults - worker, spouse, parent. Secondly, these "adults" perceive themselves as essentially responsible for their own lives.[3] Among the several characteristics forming a common bond for the adult learner are these cited of Lindeman by Knowles:

1. Adults are motivated to learn as they experience needs and interests.
2. Adults' orientation to learning is life-centered; therefore,

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therefore, the appropriate units for organizing adult learning are life situations, not subjects.
3. Experience is the richest resource for adults' learning; therefore, the core methodology of adult education is the analysis of experience.
4. Adults have a deep need to be self-directing...to engage in a process of mutual inquiry.[4]

Andragogy - the art and science of helping adults learn - has its origin attributed to Malcolm Knowles. " Adult education is concerned ...with helping people to live more successfully; ...to assist adults to increase their competence, or negotiate transitions, in their social roles... to help them gain greater fulfillment in their personal lives and to assist them solving personal and community problems."[5] Both self-education and other-directed education (teacher) form the blueprint of that labeled "adult education." Conducive to dialogue and active participation is a climate of mutual concern and respect created by the adult educator. Focus is placed on the individual learner - the development of the person - self-actualization.

Flexibility and diversity should permeate higher education's adult programs as learning becomes a team effort and not merely a "spectator sport"; becomes active, relative to daily living and not teacher-transmitted knowledge. "Experience" is the binding thread woven throughout any adult educator's writings; it surfaces consistently in every facet of research on the returning student. One becomes critically conscious of the depth of involvement where learning and teaching are concerned as one examines the role of experience in such settings.

Dewey defined education as the reconstruction and reorganization of experience which increases one's abilities to direct the course of subsequent experience.[6] By many, knowledge is viewed as separate from the ever-changing experience. However, for the growing majority of professionals in this field, knowledge and experience are equals, experience which is reflected upon so that a firm base forms for further learning.

Education truly is a lifelong process, not one only confined to youth. We must learn from everything we do; we must exploit every experience as a 'learning experience.' Every institution in our community - government agency, store, recreational organization - becomes a resource for learning - as does every person. Learning makes use of every resource - in or out of educational institutions - for our personal growth and development.[7]

When educators concern themselves with perceiving student experiences as worthy of meriting college credits, then we are using the available diverse resources found in a 'natural societal setting.' Too often this manner of acquiring knowledge is belittled and considered incidental. However, incidental does not necessarily signify accidental. The individual focused on learning the skills and knowledge essential for coping with meeting new challenges and job descriptions is acting in a 'highly purposeful manner.'[8] The assessment of such learning does become problematic for some educational institutions when assessing the suitability of some enrolling adults. If members of the faculty/administration of a college are strongly tied to the traditional student population and the mode of thinking that all learning occurs within four walls and only if teacher-centered, then it will follow that the introduction of the adult, returning student into such a mainstream will stir unchartered waters and cause some resentment and resistance. And since adults are almost always voluntary learners, they will quickly disappear from learning experiences with which they are unsatisfied.[9]

Happily, this attitude is shifting toward a more favorable stance as improved vehicles for assessing experiential learning situations are created and also, as colleges realize that the number of traditional age students are decreasing and that of the adult student increasing. Adult education presents a challenge to static concepts of intelligence, to the standardized limitations of conventional education and to the theory which restricts educational facilities to an intellectual class.[10]

According to Houle, there are essentially two types of experiential learning:

1. Experiential learning is used to describe the kind of learning undertaken by students who are given a chance to acquire and apply skills and knowledge in an immediate, relevent, and meaningful setting...direct encounter with the phenomena being studied (teacher training programs)
2. Experiential learning is used to describe education that occurs as a result of direct participation in the events of life.[11]

It is with this latter area that higher educational institutions are concerned - what learning has occurred outside the formal settings. What is the process through which each institution assesses the degree of learning contained in such life experiences and thus, designates certain amounts of college credits for each one?

" To a child experience is something that happens to him; to an adult, his experience is who he is. So in any situation in which an adult's experience is being devalued or ignored, the adult perceives this as not rejecting just his experience, but rejecting him as a person."[12] Through self-direction, the learner allows life's encounters to act as rich fountains for learning coupled with the abundant resources of the experts.

It is crucial to those involved with assessing prior learning to realize that experiential learning contains two basic components: EXPERIENCE and LEARNING. One without the other deserves no educative merit. This, I believe, is the dividing line between programs receiving the respect and acknowledgement of the academic communities and those which are frowned upon as 'watered-down' substitutions. Worthwhile life experience portfolios will have the two elements present and will be able to withstand any academic tests of reliability and achievement, of knowledge gained and of the processing of such knowledge by the learner. When these essentials are not built into a college's assessment process, then it stands to reason that traditional educators as well as the adult education experts would question the quality of the credits awarded and the depth of actual learning being claimed by the student. Adults themselves appreciate a firm stand because so many of them are planning to continue their pursuit of masters' degrees and want their undergraduate degree to reflect the academic prestige needed to enter graduate institutions.

Compiling a life experience portfolio is no easy feat. Far more difficult and complicated than several traditional classes the portfolio reflects a tedious, yet a very personally gratifying process of measuring one's journey through life and of viewing in print how far the pilgrimage has carried one. Documentation of work experiences with concrete samples, letters of recommendation from former employers and co-workers, photos, even dance performances for some; this is often the highest reward for the student.

The Cooperative Assessment of Experiential Learning group provides one of the most comprehensive studies on the various components connected with experiential learning programs. A review of materials and programs utilized within other institutions reveals factors contributing to those labelled successful: the existence of concise and concrete guidlines and the joint collaboration (and therefore, mutual support of) among faculty/students/administration in the design of such a feature.

Well written essays describing what one has done before are unable to stand alone; they require documentation to uphold the claims being set forth about experiences, work tasks accomplished, positions held, businesses administered. Below is a comprehensive listing of materials generally used as supportive documentation. Such a listing should be provided to the students planning to submit portfolios so they are clear about how to tailor their presentations to committees.

Type of Activity	Documentation
Work Experience	Job descriptions Awards Letters of commendation Letters of corroboration from superiors, peers, clients Congratulations on high performance Promotion evaluations Evidence of promotion Samples of work produced Evidence of suggestions adopted Explanation of tasks performed Explanation of ranking, rating, or classification system in company or organization Licenses Performance standards for acquiring licenses Membership in professional or trade organizations Membership requirements for professional/trade organizations Scores on licensing exams

Type of Activity	Documentation
	Military separation papers Bills of sale Rating forms Military records Work samples
Community Service Activities	Commendations Awards Newspaper and magazine clippings Letters of corroboration from co-volunteers, clients served, supervisors
Noncollege Courses and Training	Transcripts Amount of assignments Amount of time spent on outside assignments Letter attesting student was enrolled in course Learning outcomes or objectives of course Syllabi Evidence of completion Course description(s)/outline(s) Number of didactic hours Number of clinical or practicum hours Diplomas
Special Accomplishments	Books published Pictures painted Music written A list of books read Patents obtained List of countries visited Mementos from countries lived in and traveled to Machines designed Exhibits such as shells, plants, etc. Photographs of famous landmarks visited Speeches given Programs from performances Writing samples Audiovisual presentations Proposals written Conversations with experts

13

Again, there exists two opposing opinions regarding documentation. Those who do not believe this verifies a student's learning outcome and those who hold to the belief that it indeed adds to the portfolio and verifies what the student says was done. Most colleges, it seems, are leaning toward requiring documentation because it improves the credibility of the life experience program and legitimizes the experiential learning in the eyes of other accrediting agencies. Actually, without such proof, anyone who writes well could wax eloquently ...and falsely.

Besides documentation and supporting essay for each course for which a student is seeking credit, most schools require an autobiography to accompany any presentation. This provides an overview of a student's life from a different perspective and coordinates the total portfolio for committee readers. Experience is doing something...doing something that makes a difference...knowing what difference it makes.[14] Its the wealth of accumulated experiences which exert the most lasting influences onstages of growth, especially those associated with adulthood.

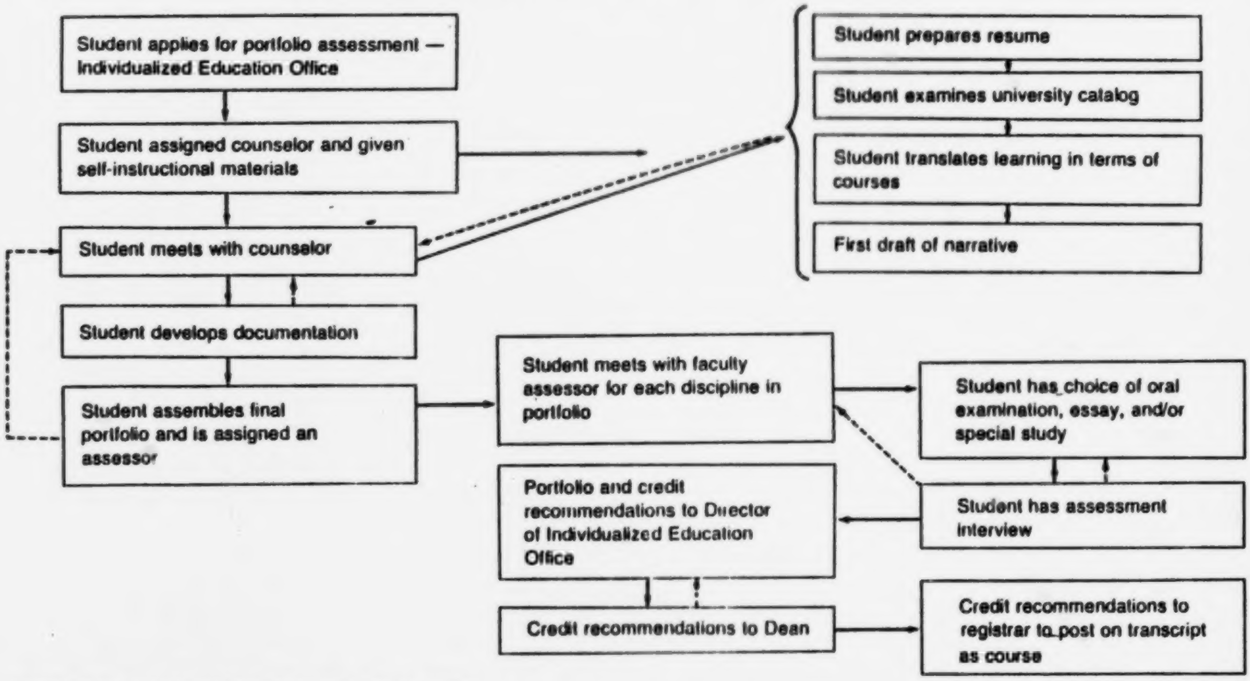
Carl Rogers has delineated the qualities of experiential learning necessary for developing fully-functioning individuals.

1. Personal Involvement - the affective and cognitive aspects of a person should be involved in the learning process.
2. Self-initiated - a sense of discovery needs to come from within.
3. Pervasive - the learning makes impact on the behavior, attitude, or person of the learner.
4. Evaluated by the Learner - the learner can best evaluate if the experience is meeting a need.
5. Essence is Meaning - when experiential learning takes place, its meaning to the learner becomes incorporated into his total experience.[15]

As people approach the distinctive colleges and universities, they are transporting multiple talents and styles of learning. Individual degree programs will recognize different aspects of these students - ones which are deemed compatible with each institution's mission and goals.

Many procedures can be designed for use with prior learning assessments. Again, CAEL offers two worthwhile ones for our consideration.

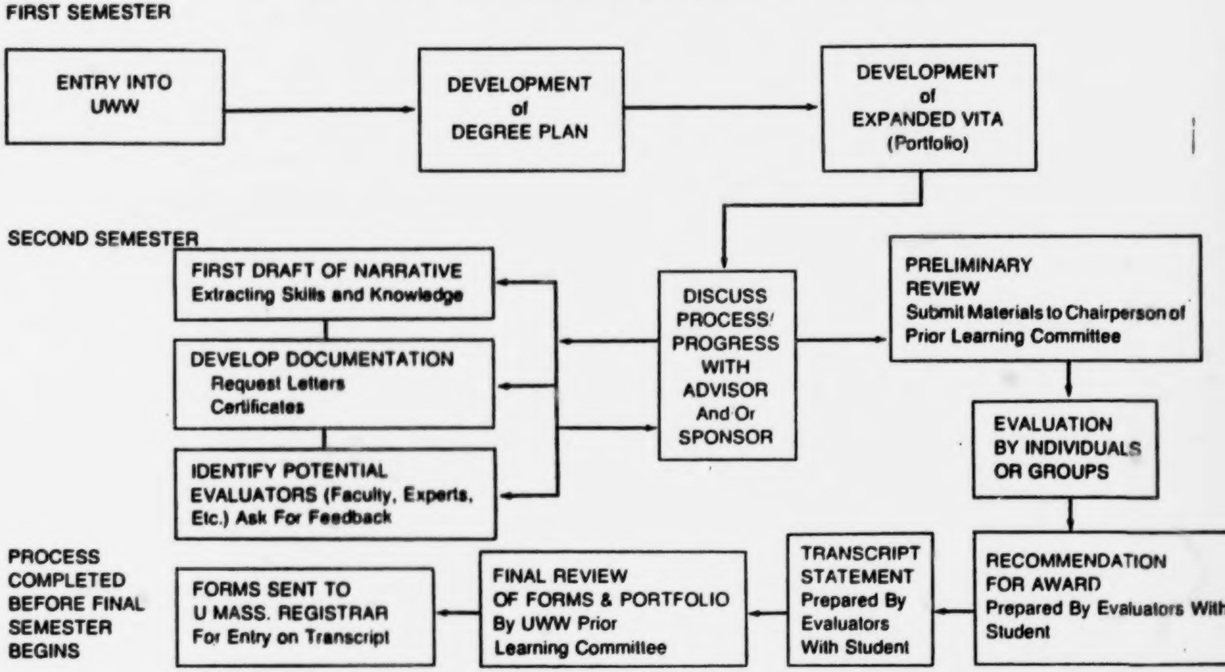
Hypothetical Configuration for Prior Learning Assessment*


Student applies for portfolio assessment — Individualized Education Office
Student assigned counselor and given self-instructional materials
Student meets with counselor
Student develops documentation
Student assembles final portfolio and is assigned an assessor
Student prepares resume
Student examines university catalog
Student translates learning in terms of courses
First draft of narrative
Student meets with faculty assessor for each discipline in portfolio
Student has choice of oral examination, essay, and/or special study
Student has assessment interview
Portfolio and credit recommendations to Director of Individualized Education Office
Credit recommendations to Dean
Credit recommendations to registrar to post on transcript as course

*Dotted lines indicate the most likely points at which feedback may occur

Figure 5

Assessment of Prior Learning as Part of a Degree Plan.*


FIRST SEMESTER
ENTRY INTO UWW
DEVELOPMENT of DEGREE PLAN
DEVELOPMENT of EXPANDED VITA (Portfolio)
SECOND SEMESTER
FIRST DRAFT OF NARRATIVE Extracting Skills and Knowledge
DEVELOP DOCUMENTATION Request Letters Certificates
IDENTIFY POTENTIAL EVALUATORS (Faculty, Experts, Etc.) Ask For Feedback
DISCUSS PROCESS/ PROGRESS WITH ADVISOR And Or SPONSOR
PRELIMINARY REVIEW Submit Materials to Chairperson of Prior Learning Committee
EVALUATION BY INDIVIDUALS OR GROUPS
PROCESS COMPLETED BEFORE FINAL SEMESTER BEGINS
FORMS SENT TO U MASS. REGISTRAR For Entry on Transcript
FINAL REVIEW OF FORMS & PORTFOLIO By UWW Prior Learning Committee
TRANSCRIPT STATEMENT Prepared By Evaluators With Student
RECOMMENDATION FOR AWARD Prepared By Evaluators With Student

*Courtesy of University Without Walls Program, University of Massachusetts, Amherst

Throughout the assessment procedures, students should be continually employing their self-directed learning skills which will thus enable them to more adequately weigh the 'outside the classroom" experiences. Too often, the returning people negate this area of their lives and desire only formal certification by 'the professionals.' The lack of esteem and self-confidence is at an extremely high level for the majority of re-entry adults.

True learning ...is learning in which a person freely consents to participate - most is gathered incidentally as one participates in life.[17] The main characteristic of quality education is the presence of deliberateness, of conscious choice; it does (should not) hinge on the presnece of a leader or teacher.

What is the end result for those who choose the road of experiential learning ...the search for credits? Who are these adults pursuing this means of completing a degree? They are among the swelling chorus of voices who shout: Life is worth celebrating - let it academically be awarded recognition by all!

FOOTNOTES

1 Edward Lindeman, *The Meaning of Adult Education*, (New Republic Publishing Co., New York, 1926), p. 9.

2 Patricia K. Cross, *Adults as Learners*,(Jossey-Bass Publishers, San Francisco, 1982), p. 201.

3 Malcolm S. Knowles, *The Modern Practice of Adult Education*, (Follett Publishing Company, Chicago, 1980), p. 24.

4 Malcolm S. Knowles,*The Adult Learner: A Neglected Species*,(Gulf Publishing Company, Houston, 1978), p. 31.

5 Gordon Darkenwald & Sharan B. Merriam, *Adult Education: Foundations of Practice*, (Harper & Row Publishers, New YOrk, 1982), p. 9.

6 Gordon Darkenwald, p. 54.

7 Malcolm S Knowles, *Self-Directed Learning*,(Follett Publishing Co., Chicago, 1975), p. 16.

8 Stephen Brookfield, Adult Learners, *Adult Education and the Community*, (Teachers College Press, New York, 1983), p. 11.

9 Chester Klevins, *Methods and Materials in Adult and Continuing Education*, (Klevins Publications, Inc., Los Angeles,1982), p. 23.

10 Malcolm Knowles, *The Adult Learner*, p. 29.

11 Cyril O. Houle, *Continuing Learning in the Professions*, (Jossey-Bass, San Francisco, 1980), p. 221.

12 Malcolm S. Knowles, *Adult Learner*,p. 56.

13 Joan Knapp, *Assessing Prior Learning - A CAEL Handbook*,(Educational Testing Services, New Jersey, 1977), p. 33.

14 Gordon Darkenwald, p. 54.

15 Carl Rogers, Freedom to Learn, (Merrill Publishing Company, Ohio, 1969), p. 288.

16 Joan Knapp, p. 61.

17 Gordon Darkenwald, p. 59

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ASSESSING EXPERIENTIAL LEARNING IN UNDERGRADUATE AGRICULTURAL AND EXTENSION EDUCATION STUDENTS

Dennis C. Scanlon

The assessment of undergraduate experiential learning is prerequisite to the development of a functional undergraduate curriculum. Because learning is made up of cognitive experiences that collectively impact on an individual's role in life, the goal of education is to supplement real life experiences in a way that contributes to the development of the whole individual.

In 1984, Odell found that 82 percent of those entering the College of Agriculture at The Pennsylvania State University had no experience in agriculture, agribusiness, or education. As a result, the Department of Agricultural and Extension Education developed a model to assess the experiential learning of incoming students.

The Assessment Model

The model currently being used by the Department assesses learning in two areas: leadership and technical agriculture.

Successful leadership experiences are indicative of basic skills in the areas of communication, speaking, and organization. These skills are fundamental to successful teaching and correlate strongly with effective teaching.

Knowledge in technical agriculture forms the basic foundation around which the vocational agriculture curriculum is built. Unlike math, science, and social studies much of agriculture is experiencial and developmental in nature, particularly those activities which relate to crop and livestock management practices. While one can read considerable information about dehorning or removing extra teats from calves, it is not until the novice teacher actually masters the skill that they are able to teach it to their own students. For this reason it is critical to determine the "depth and breadth" of agricultural "hands-on" experience that a student has obtained prior to entering the teacher education program. The model uses two basic techniques for assessing student knowledge.

Self Assessment

First, students go through a self assessment. Each student entering the program is given a checklist of specific agricultural competencies. The competency list consists of seven major areas containing over 650 competencies. Competencies in each of the areas have been refined over the past 15 years through a series of national studies in agricultural education. All competencies listed in a major

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area are considered to be "fundamental" and "essential" for teaching agriculture in that particular area. For example, a major area on the checklist is agricultural mechanics. Within this area are listed over 125 competencies which range from questions on the operation of powertools to questions on correct welding procedure. Students are asked to indicate whether they "can perform" or "cannot perform" each task and to return the entire checklist to their advisor within four weeks of entering the programs.

Checklists are summarized individually and collectively. Individual summary data is used by advisors for making specific recommendations to students regarding remedial work necessary to graduate.

Collective summary data are used to design a series of seminars specifically intended to provide students with "hands-on" experiences in deficiency areas. These seminars are referred to as Agricultural Education 205 and will be discussed later in the paper.

In addition to ascertaining competence in certain skill areas, students are also asked to describe, in narrative, all previous work or leadership experiences they have had prior to enrolling at Penn State. This provides a broader foundation and helps set the stage for the second portion of the learning assessment activity.

Faculty Interview

After completing the individualized competency checklist each student is scheduled for a 15 to 20 minute interview with a three member faculty panel. Faculty members serving on the interview panel are involved with the undergraduate program and represent an area of technical expertise. During the interview process, students are examined at length regarding past extracurricular leadership activities and occupational competencies. The interview seeks to determine to what degree technical competencies and leadership skills have been mastered. Copious notes for each student are recorded and summarized on the "interview scoresheet". Prior to the interview, each faculty member is given a summary of the individual checklist completed earlier by the student. This greatly assists in focusing the area of questioning.

At the conclusion of the interviews, the faculty review team discusses and recommends remediation activities for each student. Each student is given a written copy of the recommendations.

Remediation

Students are given the opportunity to develop additional leadership and technical skills in several ways.

Agricultural Education 205, Teaching Ag Competencies

This course includes a series of five Saturday workshops designed to develop specific technical skills. Based on student needs, as suggested by the summary of individualized competency checklists, this course is revised each semester. All students are required to take at least two credits of Ag Ed 205, and may take as many as four.

Agricultural Education 395, Internship

Students with extremely limited backgrounds are required to spend at least one and possibly two summers in an on-farm or agribusiness intern experience. Internships are arranged independently or through the Department in collaboration with other departments within the College. All internships are supervised and must last at least six weeks. They may be paid or unpaid and must be taken for credit. Pennsylvania teacher certification law requires that each student submit evidence of occupational competency within the field. This occupational competency provision can be satisified with one summer of supervised internship experience.

Student Organizations

Students needing leadership skills are encouraged to get involved in one of the three student organizations operating within the Department. Students are encouraged to become members of the Collegiate Chapter of the Future Farmers of America, Eta Chapter of Alpha Tau Alpha, or the World Agriculture Service Society. All three organizations provide leadership opportunities and professional enrichment activities designed to be congruent with the students occupational goals.

Advising

In addition, students are advised to select courses which will add technical breadth and depth to their total program of agricultural education. Individual advisors have responsibility for monitoring a students progress as they move through their professional preparation programs.

Results

Preliminary evaluation suggests that the tedious chores of assessing student skills, monitoring skill development, and making recommendations for additional skill development are paying off.

Student teachers are becoming more confident in their ability to perform, and are entering the classroom with a great more credibility and self esteem then they have had in previous years. In the classroom they are able to relate, discuss, and demonstrate curriculum that was previously foreign or unfamiliar to them. In addition, cooperating teachers report a much higher degree of satisfaction with student teacher performance.

Overall, the assessment program is helping produce a "product" that performs much better in the schools. But more importantly, we are developing teachers who feel more confident about what they do, are more satisfied with their jobs, and ultimately make a significant difference in the learning of students studying vocational agriculture.

ENRICHING COOPERATIVE EDUCATION
LEARNING FROM EXPERIENCE

Peggy L. Walton
James D. Ball

At Howard Community College, students who complete a cooperative education work experience program are awarded four academic credits for a 15-week work tour. Earning those credits involves writing at least four measurable learning objectives, composing three monthly reports and one final report of the coop experience, and attending bi-weekly coop seminars. The academic component of the coop experience is accomplished through the learning objectives and through the series of coop seminars.

Typically, students enroll in two coop work tours in consecutive academic semesters. For that reason, there are three series of seminars for coop students: Fall, Spring and Summer.

Each series consists of a set of eight, two-hour seminars. The purpose of the seminars is to facilitate students' success in the work force and to assist them in processing the learning that occurs on the job. Further, the seminars are intended to encourage the process of lifelong learning. The Fall and Summer series are concerned with career development skills. In the Spring series of seminars, two models of learning from experience are presented. The discussion below describes the use and application of these learning models.

The two theoretical models used in the Spring series are Kolb's theory of experiential learning and Jung's theory of psychological type. The two theories are typologies that classify people into specific categories that describe behavior. Each provides learners with information regarding preferred ways of learning and behaving in our everyday lives.

Kolb's theory of experiential learning is presented as a lens that helps to focus and magnify what each of us does intuitively: learn from experience. According to Kolb, learning is an integration of experience, conceptual knowledge, observation and active experimentation. It begins with the specific experience and from that generalizes to the principle: an inductive reasoning process. Experience, then, is the source of learning in the broadest sense of the word (Kolb, 1984).

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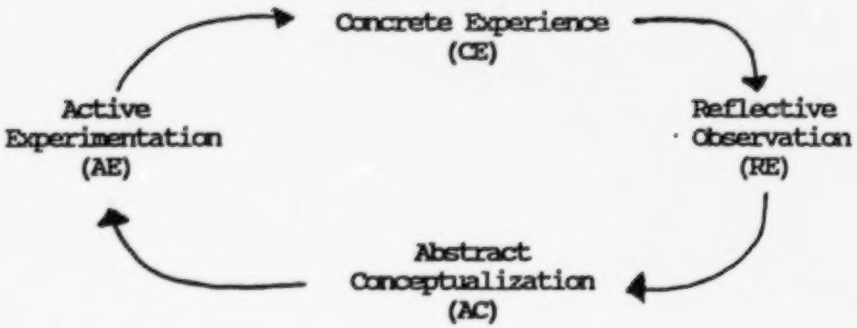

To learn from experience in this way is an ongoing spiral process. From the actual experience (CE), we stand back and view the experience from different angles (RO). We then create "rules of thumb" or principles from those observations (AC) and finally use those rules in the next experience, starting the cycle all over again.

To Kolb, as well as to Dewey, learning depends on a reflective component built into the learning. It also involves analyzing the actual experience and formulating a conceptual basis for testing that analysis in future situations. Viewing learning in this way avoids what Whitehead (1967) terms "inert ideas": discrete, unrelated facts or thoughts. Meaning is created when inertness is replaced by an integration of action and reflection (Friere, 1970).

As we learn, we begin to develop a preference for one of the modes described in the phases of the experiential learning cycle. Each of us approaches learning at a different phase of the cycle and we tend to rely on that phase in most learning situations. By taking the "Learning Style Inventory" developed by Kolb and his associates, coop students are able to identify their preferred style of learning, as well as the strengths and weaknesses associated with each of the styles. Further, students are able to understand how the knowledge of their preferred way of learning can facilitate problem-solving in general, and specifically on the job. It also provides individuals with insight into the career decision-making process and selection process (Kolb, 1985).

At the end of the Spring semester, coop students are assigned Kolb's "Personal Application Paper" in which they are to select one facet of their coop experience and walk it through the experiential learning cycle. The purpose of this is to examine experience in light of this theoretical model and gain additional insight into the experience as a result of doing so.

The second model used during the Spring series of seminars is the Jungian theory of psychological type. Jung described personality differences in terms of preferred behavioral patterns that people display, or "psychological types."

> The type which is most representative... dictates the way in which the ego most typically responds, but of course it is far from the only possible response an individual can make. Different situations make different demands.... Some ways of functioning...seem to be more successful than others and we tend to repeat our successful performances (Singer, 1973, p. 199).

The Myers-Briggs Type Indicator (MBTI), an instrument based on the typological theory of Carl Jung, was developed by Katherine Briggs and her daughter Isabel Briggs Myers. It identifies the stable and recognizable patterns in our behavior that evolve into a psychological type. The results meaningfully explain the ways in which we take in and use information. The Indicator was selected for usage in our coop seminars because of its similarity to Kolb's process of creating knowledge and its application to career selection.

According to Jung, there are two mental "functions" of taking in information ("Sensing" and "Intuition") and arriving at a decision ("Thinking" and "Feeling"). He postulated that we have two "attitudes" ("Extraversion" and "Introversion"). From their theory of human behavior, Briggs and Myers added another attitude not found in Jungian theory: "Judging" and "Perceiving." In Jungian terms, an attitude is: "...a readiness of the psyche to act or react in a certain way...and a priori orientation to a definite thing, no matter whether this is represented in consciousness or not..." (Ibid.,p. 414-415). A function is "...a particular form of psychic activity that remains the same in principle under varying conditions...." (Ibid., p. 437). As such, these are consistencies in our behavior as we transact in our environments.

In one seminar, the results of the instrument are interpreted didactly and experientially by using structured exercises. The results of the instrument are represented in a four-letter code indicating one of the sixteen possible psychological types. Each of the eight attributes that compose psychological type are illustrated in the exercises: Extraversion-Introversion, Sensing-Intuition, Thinking-Feeling, Judging-Perceiving. These exercises give students a general understanding of the instrument and qualities of personality that it measures.

In the following seminar, the concept of functional types is presented by describing each of the four functional groupings (ST, SF, NT and NF) and their characteristics. Following that, students form type-alike groups based on the two letters in their four-letter type as measured on the MBTI. Each group responds to a series of questions that elicit differences in type and the results are then processed as a whole group. These questions are:

1.) As a function group, what do we do best?
2.) What might we tend to overlook or do less effectively?
3.) What do we need to do our best work?
4.) For what do we want to be appreciated?
5.) What irritates us in others on the job?

In the same groups, students read a case study and answer processing questions regarding its contents that, again, elicit differences in perspectives according to psychological type. The case study describes a character (Chip) at work. His interactions with other employees illustrate behavior associated with his personality type and the impact of type in a work setting.

To integrate the Kolb model of experiential learning with the Jungian theory of psychological type, two methods of problem-solving are presented. Students are presented with the same task: to read a scenario dealing with researching an unfamiliar career and to respond to questions in light of their Kolb learning style (see Appendix A).

The other method of problem solving presented is the "zig-zag" method based on psychological type. Using this method, each approach to gathering information and reaching a conclusion about it is examined and used in the process of arriving at a decision.

Sensing ———————————— Intuition

Thinking ———————————— Feeling

In the seminar, heterogenous groups of types are formed and, based on the contents of Part Two of the case study of Chip, are asked to apply this method of problem-solving. The outcome is a greater understanding and appreciation of how utilizing each function contributes to a decision.

Using this method, groups begin by asking themselves: "What are the facts of the situation?" (Sensing). Next: "What are the possibilities for each of these facts? What might be the consequences for each?" (Intuition). Next: "What is a logical framework for each of these consequences? What evidence is there to document them?" (Thinking). Finally: "What is the impact on the people and the organization involved? What are the values each expresses?" (Feeling) (Myers, K. and Hartzler). The method is then processed in the large group. By following this approach to problem-solving, students learn to access the four functions and to use the strengths that each contributes to make a high quality decision.

In the final seminar, students complete several worksheets based on Laramee's model (1977) to distill learning from experiential activities. One exercise is the "Coat of Arms," in which students are asked to identify and draw the following: 1.) The personal achievement of which they are most proud, 2.) Their greatest failure, 3.) The happiest moment in their coop experience, 4.) The saddest, and 5.) The angriest moment of their experience. Then, they are asked to: 6.) Identify three opportunities that their experience afforded them, 7.) Three ways their experience is important to others, 8.) What they would change about themselves to make their experience more valuable to others, and 9.) Changes to make it more valuable to others.

A second exercise involves ranking a series of statements. Each statement contains information that relates to experiential activities and learning that could be derived from such activities. The instructions are to place a "+" next to those five which were "most learned" and a "-" next to the five which were "least learned." In break-out groups formed according to academic major, the results are shared and processed, and then reported out to the whole group.

The final seminar builds upon the theme of learning from experience presented in the Kolb model of experiential learning. Throughout the series of seminars, students are encouraged to examine their ongoing experience in light of the Kolb model and the Jungian theory presented in their class sessions. In so doing, students learn from their experience.

APPENDIX

Kolb Problem-Solving Scenario

In groups of students with the same learning style:

1.) Read the scenario
2.) Respond to the processing questions

You were watching TV one evening and during the prime-time program that was in progress, one of the minor characters was a helminthologist.

From what little was said about the work this character did your interest in the job was piqued. You've been feeling burned out in your job — a gnawing feeling of having little challenge in it any more. What once had been the ideal position in your estimation was now simply a hardship. This person on TV really caught your attention.

The next day you decide to look into what helminthologists do.

As a group, respond to the following questions:

If you were the person described above:

1.) What would you want to know about the job?

2.) How would you go about finding out what you wanted to know about it?

3.) On what basis would you decide that it was an appropriate career change for you?

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STRENGTHENING ADULT LEARNING THROUGH PROGRAM REVIEW

—

AN INSTITUTIONAL CASE STUDY

Robert L. Norris

> "This university has been distinguished by a curricula responsive to a diverse student body. We will adopt a model for continuing education to enable us to integrate academic programming for adults while providing a full range of services to them . . . Our plans are ambitious, they are driven by the identified needs of the regional adult audience, and most important, they are based upon the strengths of this university."
>
> Milton Greenberg, Provost
> The American University

Program review has been widely used in public and private institutions of higher learning and in virtually every state higher education agency. Several years ago, eighty-two percent of a sample of universities and colleges indicated that they had just completed, were in the process of completing, or would soon initiate program review. An emerging trend in program review seems to be a need to link institutional planning and evaluation with the resource allocation processes. Obviously, this trend will have an impact on adult education. In many instances, especially where there is only an emerging commitment to adult learning, the program review process may exclude or not adequately include issues related to administration, programs and services for adult learners. The American University has recently completed three years of program review, and in this case, adult learning has been greatly strengthened.

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In June, 1983, the Provost initiated the review process by sending a letter to each member of the faculty describing the purposes, objectives, criteria and procedures for academic program review. While academic program review is becoming *de regle* in higher education, it is usually imposed by a governing body, whether a state legislature or a Board of Trustees. It is important to note that the review process at The American University was self-imposed, without the impetus of an outside agency, and employed a bottom-up, collegial system of review.

The University adopted evaluation criteria similar to those established for Vanderbilt University. The evaluation criteria selected were: essentiality and quality of a program, need and demand for a program, locational advantage, cost-revenue relationships, and the costs of changing a program.

By the summer of 1984, self-reviews were submitted by each teaching unit through its dean to the Provost. A university-wide Program Review Committee was appointed, to advise the Provost. Membership was drawn, *ex officio*, from the chairs of the college Educational Policy Committees (College of Arts and Sciences, College of Public and International Affairs, and Kogod College of Business Administration) and the Faculty Senate Undergraduate Studies, Graduate Studies and Finance Committees. In addition, the Provost appointed a vice provost to represent him on the Committee. During the 1984-85 academic year, the Program Review Committee conducted a thorough evaluation of the submissions from teaching units and deans, consulting extensive institutional budget and planning data, annual reports and supplementary reports. In March, 1985, the committee presented a written report to the University Senate and the Provost.

The Senate voted unanimously to accept the ongoing review process. In May, 1985, the Provost asked each department chair, dean, and Senate leader to respond to the recommendations in the program review document, outlining general issues to which all would respond, as well as specific issues in the domain of each particular department, dean or committee. These units and individuals began preparing their responses in June, 1985. Each reply was routed through established academic and administrative channels. As each issue progressed through the system, individuals and committees were given the opportunity to evaluate and comment.

In June, 1986, the Executive Committee of the Senate voted and confirmed that the program review process was tantamount to the formal academic approval processes. The Executive Committee further concluded that recommendations of the Program Review Committee had to be accompanied by adequate rationale in cases of substantial disagreement between the Program Review Committee and academic units. Final decision authority rested with the Provost.

Reports from teaching units, deans and committees, as well as the Program Review Committee's final recommendations, were sent to the Provost by October, 1986. The committee's report was distributed to all faculty, deans, and other key administrators. The Provost announced his final decisions in an address to the faculty in November, 1986.

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The American University was established to be a great national university by a bishop of the United Methodist Church. The grand vision for the new institution was altered primarily for financial reasons; even so, emphasis on national service was showcased on a lesser scale. In the 1920s, characteristics distinguishing the institution for the next five decades emerged. A small liberal arts college was opened at the uptown or hilltop campus, and downtown, on F Street (the current location of George Washington University), the University launched professional continuing education programs.

The downtown campus was the focus of the University's activities for almost half a century. There the professional and graduate schools were established, and the University began in-service education programs for government workers. As the federal government expanded, so did the University. The original vision for the university shifted from that of a national university to a university serving the nation through the education of the managers and professionals in the rapidly expanding civil service. The American University became an institution predominantly dedicated to part-time, evening, continuing education.

In the 1960s, the University reorganized, placing greater emphasis on full-time study. The downtown campus was sold in order to build facilities on the larger suburban "uptown" campus. The graduate school was abolished, and graduate and undergraduate education was integrated departmentally. The School of Government and Public Affairs assumed a leadership role in continuing education as did the College of Continuing Education (CCE) which was founded in 1965. A decade later, CCE lost its status as a teaching unit and became a division. Five years ago the position of Vice Provost for University Programs was created to supervise the administration of various offices serving adult learners, along with Washington Semester and Study Abroad Programs, the Career Center, and several other special programs, service units and contracts.

Today student enrollment at The American University is almost evenly divided between graduate and undergraduate. The undergraduate student population has become more full-time; slightly more than ten percent of the students are part-time compared to almost twenty percent fifteen years ago. At the graduate level, part-time students continue to outnumber full-time students; this fall fifty-eight percent of the graduate population was part-time, and a decade ago two-thirds studied on a part-time basis.

The continuing education operation at The American University does not have a strong programmatic identification, except for certificate programs and the assessment of experiential learning (non-degree activities). Since the 1960s, the domain of "continuing education" at American has been non-degree, non-credit and off-campus offerings. Non-credit programs have tended to be either recreational or professional short courses selected because they are attractive to adult learners and do not seem to threaten enrollments in "regular" credit courses. Off-campus enrollments have declined. There were 1666 off-campus student enrollments fall term 1975; this number has shrunk to 286 for fall 1986. This decline is the result of moving programs on campus, a reluctance to staff off-campus courses, and a narrowing of the difference of on-campus and off-campus tuition rates. Historically The American University has been friendly to adult non-degree students, and remains so today, but the number of non-degree enrollments has also declined (35% over the last decade). This decline has probably been caused by relatively high tuition, better academic counseling and the enforcement of more rigorous standards as well as less advertising targeted at the non-degree market.

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At the outset of program review, continuing education was not viewed as a central or critical concern; it became a key issue both politically and academically. In its first report, the Program Review Committee declared that, "the University lacks a clear vision of what it wants to be, or become, with regard to continuing education, and it even lacks a clear understanding of what presently constitutes continuing education at our institution." The committee urged the faculty and administration to develop a focused mission and set objectives for adult and continuing studies. The committee provided several recommendations designed to clarify or strengthen adult education throughout the University.

In response to the committee's recommendations and his own conviction that a unique and supportable niche for continuing education could and must be created at The American University, the Provost hosted four retreats with the college deans, Dean of Faculties, Director of the Budget, and Vice Provost for University Programs (the executive responsible for programs and services for adult learners). The retreats revealed several areas of agreement and orchestrated areas where agreement was not possible. Disagreement centered around whether or not centralized continuing education activities should include the administration of degree programs. A planning document called "The Centrist Model for Continuing Education at The American University" was prepared from these deliberations, discussions with faculty, staff and external consultants. This document provided background information and recommendations for the next iteration of the program review. Some members of the Senate Committee for Continuing Education had reservations regarding the perceived centralization of programmatic and academic authority. The recommendations contained in the centrist plan were endorsed by the Program Review Committee, and all but one of the recommendations were approved by the Provost.

The program review recommendations solidified several changes recently adopted. Centralized procurement and pricing practices have been strengthened for education and training contracts with corporations and federal agencies. The lead role of The University Programs Advisement Center in recruiting local degree and non-degree adult students and the redefinition of the center's role as university-wide adult student center has been affirmed by program review decisions.

Several of the recommendations adopted from the centrist plan modify existing procedures in order to directly involve academic units in activities traditionally viewed as the special preserve of "continuing education." For example, academic units will now participate in the advisement of non-degree students with an intended area of study as early as possible. In addition, a registration and information system will be implemented with subfields to more accurately identify students now designated non-degree.

The most controversial recommendation of program review called for the creation of a structure and process "to develop, promote and administer continuing professional and adult programs" guided by the premise that continuing education programing must be sensitive to the needs of the audience, must orchestrate and build on the strengths of the University, and must not be inhibited by traditional academic structural distinctions. The new unit or units, which will replace the Office of Continuing Education and Conferences, should:

- Offer select, high-quality, special continuing professional programs at the graduate level or not for credit.
- Offer a few distinctive undergraduate adult education programs.
- Attract students who would not otherwise attend AU.
- Provide services for adult learners, using them to attract and retain students.
- Expand faculty size and capabilities.
- Establish incentives and rewards for offering and teaching special continuing education courses and programs.
- Improve the faculty's ability to teach adult learners.
- Enhance the University's reputation nationally and increase its visibility in the Washington metropolitan area.

In response to the Provost's mandate to create a new structure and process for the development and administration of programs designed to serve adult students, individual and small group consultations were held with thirty faculty leaders, deans and chairs. The proposal now being implemented calls for the creation of two new centers, a Center for Continuing Professional Studies and a Center for Adult and Liberal Studies.

The Center for Continuing Professional Studies will educate professionals for career advancement and update skills of individuals who have advanced in their careers. A select series of executive development seminars will also be developed. The Center for Adult and Liberal Studies will concentrate its offerings in two areas -- programs for adults in transition and non-credit course clusters in the arts, humanities and cross-cultural studies. The activities of the centers will be driven by the strengths of the University and the needs of the audience.

The preliminary business plan for the two centers is purposely not specific whether programs will be degree majors or certificates, for credit or credit free, or on or off campus because these issues are secondary and often artificial considerations. The characteristics of programs under consideration for inclusion in the centers is that they will tend to be market sensitive, cut across teaching units, require non-traditional and creative delivery and scheduling. The "territory" of the centers will be fluid, and it is envisioned that they will help incubate new programs that have, on one hand, a short-life, and on the other, eventually may be transferred to an academic unit.

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Coupling the development of continuing education with program review had many advantages and only one major disadvantage. Program review took three years, and therefore, decision and action was deferred until the process was complete.

One of the main benefits of considering adult learning issues in the context of program review is that it fosters an environment receptive to change. The process was managed by the Office of the Provost with the full backing of the President, with the added advantage that the Vice Provost for University Programs was on the Program Review Committee as the Provost's representative. As the ranking executive responsible for continuing studies at the University, the Vice Provost provided a liaison between the units serving adult learners, the Provost's office, and the Program Review Committee.

The framework of program review encouraged staff and faculty with a vested interest in adult education to assume an institutional, rather than parochial, perspective. Program review issues were considered university-wide concerns, and recommendations were presented in terms of what was best for the "turfless" University.

Program review was an educational exercise. Faculty and staff learned about each other's programs, students, and administrative/service requirements, and, the community became more aware of issues important to their profession -- higher education. One of the early revelations was that adult learning and continuing education meant different things to different people. A variety of notions about what constitutes "continuing education" made communication difficult. The supporters of adult education at the University, including several individuals with national reputations, shared their insights at the various forums of program review. Several articles about adult learners, contract programs and continuing studies were placed in internal publications.

One of the most important contributions of the review process to continuing studies was programmatic. The entire curriculum of the three major colleges and the school of nursing were under review. Although several programs serving adult learners were eliminated, the potential programmatic gains for quality continuing professional studies has been enhanced. The concentration of energies, the notion that less is more, and the strengthening of programs will shape the future of continuing education at The American University to the advantage of adult learners.

The most important consequence of program review is the protocol designed to resolve the centralized vs. decentralized dilemma. This has been achieved by focusing on the needs of the audience rather than following the historic strictures of academe. A structure and process for programs and services for adult learners has emerged that is well defined, comfortable to many faculty and administratively fluid. New partnerships with academic units have been created as new programs are considered, and existing programs are revised or terminated.

What has been done is firmly grounded on the mission and strengths of The American University, yet should provide a model for other institutions.

OUTCOME MEASUREMENT AS A MEASUREMENT OF QUALITY IN NON-TRADITIONAL DEGREE EDUCATION

Colin P. Silverthorne

The criticisms facing higher education in America in general and non-traditional programs in particular require a strong leadership role from deans and directors of non-traditional programs to ensure that quality is not only maintained but also seen to be maintained. The development and measurement of outcomes in non-traditional programs is one way to achieve this demonstration of quality.

The first stage in outcome measurement requires the defining of needs by identifying current student, institutional, and societal needs as they apply to a particular program. This process typically requires some kind of needs assessment. These needs subsequently require translation into some form of outcome measurement, especially to the extent that these needs can be specifically attributed to the program itself.

The goal here is to create a balance between the current situation and the ideal situation or goal. Thus, need statements should encompass elements of both the current situation and the goal. In formulating need statements, three different elements need to be reviewed, (Berquist and Armstrong, 1986).

Student Needs

1) Generic skills, knowledge, and attitudes
2) Prerequisite skills, knowledge, and attitudes
3) Personal skills, knowledge, and attitudes
4) Developmental skills, knowledge, and attitudes
5) Career-oriented skills, knowledge, and attitudes
6) Lifelong learning skills, knowledge, and attitudes

Institutional Needs

1) Achievements or maintenance of educational quality
2) Financial resources

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3) Marketing
4) Stabilization and continuity
5) Community support

Societal Needs

1) Current
2) Probable (future)
3) Desirable (future)

The assessment of student needs can be obtained by a review with current students, faculty, or alumni. Such assessment can be measured using a needs questionnaire administered to the appropriate group. Each of these groups have advantages or disadvantages. For example, current students have the advantage of timeliness, but the potential disadvantage is that the questionnaire may draw attention to weaknesses in the program in which they are still enrolled. Alumni have the advantage of the possibility of reflecting applications of the curricula and subsequent learning and the disadvantage of timeliness, (i.e., the institution and the curricula may have changed and evolved since the student graduated). Faculty have the advantage of expertise in the field but the disadvantage of possible self-serving responses which will ensure or protect continued employment. Probably, a combination of these three approaches with consideration of each of their strengths and weaknesses is appropriate.

The second level of analysis requires the prioritizing of specific needs as they relate to the mission of the college or university. This can only be done by reviewing the current institutional mission and goal statements as they relate to the academic program. This mission statement should be reviewed to identify the societal need most closely addressed by the mission statement and what the goals of the institution would be if they responded to these needs? Statements of need which most closely relate to the mission statement should be given the highest priority.

Having articulated clear and specific need statements, it is necessary to translate these into outcomes. These outcomes should contain three and possibly four ingredients, (Cook, 1978 page 41). The first should specify the learner. In our case, this is the adult student enrolled in a specific program or course sequence. Secondly, it should be an unambiguous and observable action. Thirdly, if possible, it should specify the conditions under which these outcomes will be assessed; and finally, the outcome should contain a description of the minimal level of acceptable response. The advantage of specifying student learning outcomes is particularly valuable with new programs and the emphasis on systematic appraisal.

Once the objectives for class sessions and courses are established, the process of outcome measurement becomes relatively straightforward. A lot of evidence of student accomplishments probably exists in what is already being done in your programs, i.e., quizzes, final exams, topic papers, oral presentations, and student evaluations of the instruction. The trick would be to pull some documentation from the large body of evidence and organize it into systematic statements of the capabilities to be expected of students who complete each course and the program as a whole.

The quizzes and--final exams are a good place to start, even if every course does not have them. For example, assuming there are typically about four weekly quizzes of ten or fifteen minutes each in the courses where quizzes are used, the parts of those four quizzes that the students usually succeed with can constitute a rough statement of the material the students have successfully been over--the ground-work of the course. It will be incomplete, but, if the quizzes do not give information that is useful, they ought to be either revised so that they do or abandoned. Even if they are only intended as a device to prod the students into keeping current with the assigned reading, they can be made to do more than that. Anyway, the content of the quizzes in a course is a useful start toward a statement of what the course has accomplished, and it is generally available.

Final exams can be made to reflect accomplishment of the major purposes of a course, or understanding of the dominant issues. In a course like Advanced Research Methods, in our programs for example, there are some major principles or areas of understanding that are central to the course. These include: how to draw defensible inferences from evidence produced by non-experimental and qualitative research methods, what the strengths and weaknesses of those methods are compared with experimental procedures, and how each type of procedure can be made most effective. Basic principles or issues that constitute the foundation of the course should be demonstrated in the final exam, and the record left by the exams should indicate what those issues were. That is not achieved if grades are the only formal record of student performance. If either of these requirements are not met, the exams should be improved.

Typically, written assessments like quizzes and final exams are used for assigning students' grades and little else. Sometimes they tell the faculty member teaching the course where the students are having trouble and, therefore, what things he or she ought to give more attention to. Beyond those uses, though, the performance of students on exams, even more than quizzes, ought to provide a record of the students' collective knowledge and understanding of the substance of the course. Helping your faculty build that kind of collective record from the quizzes and exams they already use may be one of the more useful things that can be done.

A second kind of evidence of learning is found in papers and other tangible student products, as distinguished from the oral presentations and class participation that may be required. A systematic analysis of those products can be used to document the students' collective accomplishment in some of the most important aspects of a course or of a full semester's study. The usual difficulty in evaluating those student products and drawing inferences about student accomplishment from them is their wide variability. It is not hard to say one student's work is better than another's, but it often is hard to say clearly and in detail what each of those students have and have not accomplished. As with exams, grades are easier to record than the substance of the learning the grades reflect. Improvements in the ways the student assignments are structured and then evaluated can make the information about what capabilities are and are not demonstrated in them more accessible.

Third, the students' evaluations of the instruction and curriculum can provide evidence of the students' accomplishments. Often forms have a structured focus on the mechanics of instruction and curriculum--did the instructor encourage class discussion, present contrasting points of view, show a genuine interest in students; were there pacing or sequencing problems in the course, what made the good sessions good and the poor ones poor? These are useful things to ask, but they could be extended to ask the students to describe what they have learned. Are they comfortable with their understanding of the integration of concepts from systems theory with those describing social change? How well have they mastered a range of techniques for organizational diagnosis? In short, the students can be asked to give more comprehensive information.

A fourth source of evidence of learning, and one of the most important, consists of oral presentations and class discussions. These are major parts of each course in our programs but which would typically leave minimal records, if any, of what they show the students have learned. One way to record the evidence of learning they provide is to draw on an end-of-session or course summary. In this process, the instructor would take the last fifteen minutes or so of each week's courses to review and evaluate, critically and constructively, what has occurred in the class--the kinds of accomplishment the students have demonstrated, the areas of weakness or misunderstanding that have appeared, and possibilities for correcting them in future classes. If those narrative summaries were taped and transcribed, or themselves summarized in writing, they would provide a detailed written record of the learning students had demonstrated in their class sessions; and, at the same time, they pull together for the students where they have been and where they are going.

A variation of this might be to ask the students to provide the end-of-session summary and critique, with the instructor only elaborating as necessary. However they are done, these detailed summaries of each class session can then lead to a more comprehensive evaluation. Two or three faculty members working together could compile, from the summaries, a comprehensive statement of what the students completing the program had accomplished. That statement, with similar summaries derived from the exams, assignments, and student evaluations, would provide four independent sources of documentation of student learning in the program. They would also, collectively, tell you and the faculty where the program's strengths and weaknesses are, where there are redundancies, and which important issues are getting slighted or need more emphasis.

What all this adds up to is using what your faculty may already be doing to provide a systematic, comprehensive statement of student learning. It will require some additional faculty effort in reviewing and summarizing what their assignments and class sessions are producing and how the different classes mesh into a complete program. But it can be done slowly and comparatively painlessly, and after a couple of years of learning what works and what does not, the time demands will shrink to little more than what people may be doing now.

Finally, there are some general principles of assessment that can usually be readily applied to typical faculty procedures, such as paying attention to the various kinds of difficulties students have with exam questions or papers as well as to whether they have got things right or not. A few hours of discussions with faculty members should make this data readily available.

All of the undergraduate and graduate programs conducted under the auspices of the College of Professional Studies at the University of San Francisco are predetermined sequence of courses each with a clearly articulated set of learning outcomes and activities. The undergraduate programs all begin with a ten week course entitled "Foundations in Lifelong Learning." At the second session of the course, students complete the Logical Relations Test. This test is a test of general writing ability. At the final session, students complete a two hour writing assignment to assess an outcome measurement of writing ability that can be compared to the initial scores on the Logical Relations Test.

In a study aimed at comparing the relationship between writing ability of students at the beginning of the program and at the end of the writing component, data from over 500 students were collected. The adult students in this program had an average age in the mid 30's. The mean test scores of the incoming students were 44.05 (perfect score is 50), with a standard deviation of 4.94. Interestingly, this mean score was significantly higher than the norms for traditional age incoming Freshmen. (Mean = 37.41, standard deviation = 7.95 difference on t test for independent samples significant at the .01 level). The higher scores of the adult students were perhaps surprising since many had been out of school for at least several years, were rusty at taking tests, and were generally nervous in the first weeks of a strenuous college program. It might be speculated that the increased ability to reason logically was not formally learned in classrooms, but rather learned indirectly and intuitively through experience.

At the end of the writing program, student essays were evaluated using a holistic essay grading process. The objectives of this process were to assess the general writing ability of these students using a random sampling of their writing; to establish minimum competency standards for teaching and evaluating students' writing; to identify areas of weakness in the writing curriculum; and to investigate correlations between general writing skills and scores on the Logical Relations Test. Overall results indicated a higher than average score on scales related to the three scales of Mechanics, Organization, and Language, with an overall rating of 2.7 on a 4.0 scale. In general, the results indicate the effectiveness of the writing program, that outcomes can be measured, and, in this case, demonstrate that outcomes and objectives can be established and evaluated.

The process then is to establish objectives and outcomes and develop procedures for evaluating student performance against these outcomes. This paper demonstrated a specific example with a writing program and suggested a series of steps which would be readily adopted from processes and procedures which are probably already in place. Non-traditional programs are likely to be continually subjected to excessive scrutiny. As educators in this field, we have to lead the way to develop all of the procedures to demonstrate that innovation and quality should be and is the norm for non-traditional programs.

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"FORGING A CREATIVE PARTNERSHIP: AN INTERDISCIPLINARY CURRICULUM IN REAL ESTATE STUDIES"

William P. Barone, Ph.D.
William P. Buzzi, J.D.

The purpose of the presentation is to describe the unique process and product involved in the interdisciplinary development of two degree and a certificate program in real estate education.

The process involved a unique partnership between the real estate profession, the Center for Continuing Education and the School of Business and Administration. Three Curriculum products emerged from this partnership: a BSBA degree program, a concentration in real estate at the MBA level, and a certificate program marketed by the Center for Continuing Education to the post-graduate, non-traditional market.

The impetus and funding for this curriculum project originated with the real estate community, the leadership and curriculum development occurred in the Center for Continuing Education and the degree program resides in the School of Business and Administration.

This presentation may well serve as a model for other institutions not only because of the curriculum produced which resulted from this venture, but primarily because of the distinctive process and diverse constituencies which were brought together (real estate profession, local, state and county governmental agencies, professional associations, Continuing Education and the School of Business and Administration) to form the partnership to fund, design and implement this project.

In the Fall of 1985, we had the opportunity to inherit a non-credit certificate granting real estate program the completion of which would lead to a salesperson or broker's license. The program was one of the first in the city of Pittsburgh having been started in 1967, and enrollment in the program had been declining for the past five years. No classes had been offered in almost two years. In the interim other programs quickly moved to capture Duquesne University's share of the market , and we were now facing

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William P. Barone, Ph.D., Director, Center for Continuing Education and William P. Buzzi, J.D., Director, Center for Real Estate Studies, Duquesne University, Pittsburgh, PA 15282 competition from approximately ten colleges and proprietary programs including one heavily promoted by the Greater Pittsburgh Board of Realtors. To compound the felony, Pittsburgh was in the midst of a severe economic transition moving from a heavy industrial to a service and high tech based economy. The past five years had witnessed drastic declines and cut backs in most of the major employers in the area. The RIFS had not been limited to blue collar workers only but had extended to middle and upper level management personnel through take-overs, mergers and diversifications. Pittsburgh was undergoing serious economic trauma and had slipped in the ratings from the position of having the third largest number of corporate headquarters in the United States to a position of fifth or sixth. Due to maneuvering set in place by T. Boone Pickens, Gulf Oil was taken over by Chevron and closed its $350 million research facility and corporate headquarters in the city of Pittsburgh. The entire operation was moved to San Francisco and few employees were invited to move with it. After almost a 75 year history of producing steel, USS merged with Marathon Oil, became USX, and quickly began to divest the corporation of all steel manufacturing operations. Union Switch & Signal closed its Pittsburgh operation. J&L Steel was taken over by LTV and within three years most of the Monongahela river valley operations were drastically reduced or closed. The list, unfortunately, is much longer. The only major industry which continued to expand and hire new employees was Mellon Bank. However, the most recent rumor around town is that Mellon Bank will be laying off personnel. In addition, demographic studies indicated the population in Pittsburgh and Allegheny County was shrinking. Moreover, Pennsylvania now enjoys the dubious distinction of having the 4th largest population over the age of 65, 14.1% of the population or 1,676,000 Pennsylvanians are presently 65 years old or older.[1] The problem was exacerbated in the Greater Pittsburgh area in that it had the second highest percentage of persons 65 or over - exceeded only by Naples, Florida. It was within this context that we sought outside advice before researching the real estate licensure program.

A preliminary meeting was held with three members of the real estate profession; the current President of the Greater Pittsburgh Board of Realtors, the Executive director of the Greater Pittsburgh Board of Realtors and a past president of the Greater Pittsburgh Board of Realtors and Pennsylvania State Boards and owner of real estate appraisal firm. The advice which resulted from the meeting was unanimously opposed to the continuation of the licensure program. Their opinion was that the industry needed to be professionalized and that the time was right for Duquesne University to offer a degree program in real estate. The industry was complex, highly regulated and involved financial transactions which demanded highly trained, well educated professionals. Duquesne University would be the first institution in all of Western Pennsylvania to offer a degree program. Finally, according to a recent environmental scan,[2] the program matched one of the top ten areas of projected new job growth. Based on the results of this meeting, a decision was made to continue exploring the feasibility of such a project.

The Process

In the Spring of 1986 a committee comprised of practicing professionals and University personnel was convened to determine the direction and future of real estate education at Duquesne University. The consensus emanating from this initial meeting was that Duquesne University should explore the possibility of starting BSBA and MBA degree programs in real estate. A follow-up meeting comprised of real estate professionals, officers of professional associations, university board members and other personnel affirmed this earlier conclusion and identified four (4) major thrusts which this effort could take; first, the development and implementation of an undergraduate curriculum designed to offer specialized study in all phases of real estate; second, designing and implementing a concentration in real estate for MBA candidates; third, offering certificate programs to the post-graduate market through the Division of Continuing Education, and; fourth, providing seminars, library and research resources to practicing professionals working in the Greater Pittsburgh area.

It was determined that an appropriate vehicle to accomplish these goals would be to establish a Center for Real Estate Studies which would be housed within the School of Business and Administration. The proposed program would be supported by the common body of knowledge offered in the existing undergraduate business curriculum and the MBA program. The curriculum, which would provide for professional specialization, was designed to be responsive to the needs of the real estate community by preparing students with the proper blend of theory and analytical skills. Specifically, it was decided to provide students with a multi-disciplinary approach to the study of real estate, with emphasis on management, economic, financial and quantitative analysis preparing them for careers within the full range of the profession.

Needs Assessment

Real Estate is one of the most important commodities in our economic system. The diversity involved in the ownership, management and sale of real estate commodities has created a demand for personnel who have a broad range of knowledge and skills. In order to determine whether a market existed in the Pittsburgh area, two basic questions needed to be answered: "Is there a sufficient demand in the Greater Pittsburgh area for a pool of highly educated real estate professionals?" and "What, if any, is the nature of the local competition?" The following needs assessment technique was designed in order to answer these questions.

A. A survey was conducted among local real estate corporations and professional organizations in order to determine their assessment of the need locally for a degree program in real estate.

B. At the recommendation of the Advisory Committee, a telephone survey was conducted among a select sample of four year colleges and universities in order to assess the local competition and their perception of a need for a degree program. The results of the survey indicated three things:

1. There was no competition in Western Pennsylvania;
2. During the past two years, a number of institutions had recently started or moved to degree programs in Real Estate at the BSBA level, including, the Wharton School and Columbia University
3. The concept was enthusiastically supported and encouraged by Directors of these Real Estate programs.

C. A review of related literature was conducted in order to determine the thrust of real estate education on a national level.

Community Endorsement

As Pittsburgh completes the transition from a heavy industrial to service based economy, the demand for persons with specialized skills in real estate is expected to increase. Our survey indicated all market segments - residential, commercial and industrial - had experienced growth during the decade. A firm base of financial resources, growing economy and recognized desirability had combined to make the Pittsburgh area one of the nation's premiere centers for real estate investment and development. When local corporations and professional organizations were surveyed about the current need and future growth of the local real estate industry, the response was overwhelmingly positive and optimistic. When questioned about the need for a degree granting program the response was totally affirmative. Letters of endorsement were received from every segment of the real estate industry as evidence of the support the local and state real estate professions had for the proposal. All of the data pointed to the fact that employment opportunities exist for competent, well qualified, highly trained practitioners.

Grants

In addition to testimonials, two substantial grants totaling $20,000 were obtained in order to conduct a feasibility study and develop a curriculum proposal. T.A. Title Insurance Company (a Philadelphia based title firm with branches in Western Pennsylvania) and The Pennsylvania Association of Realtors Education Foundation have provided the initial funding for the proposed BSBA and MBA degree program at Duquesne University. These two grants represent concrete expression of the support and enthusiasm the real estate industry has for the degree proposal.

Analysis of The Competition

A recent study cited in the *Journal of Real Estate Education*[3] reports that nationally the number of degree granting institutions in real estate is limited. Of the 745 colleges and universities responding to a 1984 survey conducted by the National Association of Realtors, 127 institutions offered an associate degree, 28 offered a bachelor's degree and five (5) offered a program that led to a doctorate. Currently there are only three (3) nationally accredited (A.A.C.S.B.) programs in Pennsylvania; The Pennsylvania State University, Temple University and most recently the University of Pennsylvania's Wharton School of Business. The Wharton program began with the 1985-86 academic year and offers both an undergraduate major and MBA concentration. Outside of the Commonwealth, the only other program within a 200 mile radius is that offered by the Ohio State University in Columbus, Ohio.

During the feasibility study for the program, Directors of some of the most respected university real estate programs were contacted. The University of Connecticut, Indiana University, The University of Georgia, The University of Illinois, University of Colorado, Ohio State University, The Pennsylvania State University and the University of Pennsylvania Wharton School all contributed time and materials, offering support and endorsement for our efforts.

The results of the contacts and survey indicate that presently no competition for a degree granting program in real estate existed in the immediate tri-state area. Duquesne University had a unique opportunity to fill a void in this educational market and be the first institution to offer the BSBA and MBA degrees in Real Estate in Western Pennsylvania.

Advisory Board

As has been stated, the regional real estate community was involved from the first meeting in determining the feasibility of establishing a degree program in real estate at Duquesne University. The support, involvement and guidance of the industry was essential in order to develop a course of study with meaningful practical classroom experiences which will enable graduates to enter the business world with the skills necessary to assume responsibility.

To this end, an Advisory Board was structured to function in five (5) areas:

1. Curriculum development;
2. Ongoing program review;
3. Continuing Education of area real estate professionals;
4. Assistance in securing program funding; and
5. Advancing the standards of real estate professionals in the Pittsburgh region, The Commonwealth and the Nation.

The Products

The Center for Real Estate Studies will provide students with a multi-disciplinary approach to the study of real estate. Recognizing the diverse nature of the present real estate profession, the student will be presented with a balanced curriculum which emphasizes the management, marketing, economics, financial, information systems and quantitative dimension of real estate practice. The program reflects the diversity of the profession and seeks to prepare students for a career in a wide range of areas including real estate brokerage, real estate management, appraisal, mortgage banking, corporate real estate and property management. The philosophy underlying the program dictates a balance of practical and theoretical skills, analytical abilities and creativity in order to prepare students for present and future job possibilities.

The Undergraduate Program

The Bachelor of Science in Business Administration degree with a concentration in Real Estate requires 120 credits of University course-work. This program includes 30 credits of required University core curriculum and Liberal Arts courses, 12 credits of electives in the Liberal Arts and Sciences, 12 credits in a secondary area of concentration, 42 core credits in the School of Business and Administration, and 24 credits in the real estate area of concentration.

Undergraduate students majoring in real estate must complete a fifteen credit required core. The remaining nine (9) credits may be elected from other courses in the real estate curriculum.

Core Courses:

Fundamentals of Real Estate
Real Estate Finance and Mortgage Banking

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Real Estate Valuation (Residential) or
(Commercial/Industrial)
Real Estate Investment Analysis
Real Estate Law

*Electives:

Real Estate Valuation (Commercial/Industrial)
or (Residential)
Urban Land Economics and Land Use Issues
Seminar: Real Estate Investment
Property Management

* Electives in Marketing and other areas will be added as the program develops.

The Master of Business Administration Program

The 56 credit MBA program which includes a nine (9) credit concentration in real estate, is a broad based program which provides the student with a variety of business course experiences. The MBA candidate has an opportunity to apply fundamentals of accounting, finance, marketing, management, statistics, information systems and related business courses to the practice of real estate.

Graduate students who wish to take a concentration in real estate may elect nine (9) credits from the following course offerings:

- Foundations of Real Estate (required)
- Advanced Valuation: Theory, Practice and Methods
- Real Estate and Urban Land Economics
- Applied Real Estate Market Analysis
- Seminar: Advanced Real Estate Topics

Continuing Education Certificate Program

Post graduate business students specializing in real estate will be awarded a Basic Certificate in Real Estate at the completion of a 15 credit core. Upon completion of nine additional credits the student will be awarded an advanced certificate in Real Estate. These programs, offered in cooperation with the Division of Continuing Education, are designed for the non-traditional - 21 or over - student who is a non-degree candidate. These students must meet the prerequisite requirements as established by the School of Business and Administration.

Conclusion

The world of real estate is becoming increasingly complex, dynamic and sophisticated. The complexity of today's real estate practice is demanding an increased level of skill among practitioners. The overall purpose of Duquene's program is to provide students with the proper preparation for succeess in this profession. Specifically, the purpose of the program is to prepare students with the skills and abilities necessary to make decisions about owning, managing and disposing of real property. A sound understanding of this investment cycle is fundamental to succeeding in all phases of the real estate industry: corporate asset management, mortgage lending and banking, real estate development, brokerage, appraisal and local, state and federal housing and development programs. The program seeks to provide students with a balanced curriculum which will impart both technique and intellectual vision, theory and practice, and prepare them to enter the real estate profession at a level of competence respected by practitioners.

Aging America: Trends and Projections, 1985-86 Edition. Prepared by the U.S. Senate Committee on Aging in conjunction with the AARP, and the Federal Council on Aging and the Administration on Aging. p.31.

Copeland, William J., "Environmental Scan Task Force Report", United Way of Allegheny co., Pittsburgh, PA, 1985. p. 14.

Journal of Real Estate Education, Volume 4, No. 1., National Association of Realtors, Education Division, Chicago, Illinois, Winter/Spring 1985. p. 29.

HOW A SMALL LIBERAL ARTS INSTITUTION IN TENNESSEE IS MEETING CORPORATE EDUCATIONAL NEEDS

Donald B. Clardy

During the early 1980's, Tusculum College recognized how the needs of mature working adults differed from the traditional day student. As a result, the institution developed an interdisciplinary academic program which would allow working professionals to earn the baccalaureate degree while maintaining full-time employment. The program was designed for individuals who had completed two years of college. The ultimate goal of the program was to eliminate the barriers traditionally faced by working adults and at the same time to maintain a commitment to academic quality.

Some of the innovative components of the Tusculum College undergraduate program are listed below:

1. A course designed to alleviate the fears and concerns of adults returning to college-level study.
2. A course designed to instruct students concerning the preparation of materials to be submitted for assessment of prior learning.
3. A research course/practicum block within the curriculum designed to impart research skills and have students conduct research to resolve problems which exist in the work setting.
4. Careful screening, evaluation, and selection of faculty members based on academic preparation, professional experience in the area in which they are teaching, and demonstrated teaching ability.
5. Adherence to a corporate calendar instead of an academic calendar traditionally followed by colleges.
6. Extended registration services and delivery of educational materials to the students at class meeting sites.
7. Selection of classroom sites that simulate the business/industry setting.

Since the inception of the program in September, 1984, over 750 undergraduate students have enrolled in the Bachelor of Science Degree programs. This enrollment within the last two and one-half years represents a 200 percent increase for the institution.

Dr. Donald B. Clardy, Dean
Adult & Graduate Programs, Tusculum College
Greenville, Tennessee 37743

Program Components

The undergraduate Bachelor of Science Degree Program offered by Tusculum College consists of three (3) major program components. These include the content/subject matter curriculum, the experiential education/assessment component, and the research project requirements.

The student enters the Tusculum College program with two or more years of previous college work (60+ semester hours). The primary areas of study for the major are business administration and organizational management. The required course sequence includes 37 semester hours. These courses are upper division in structure and are required to be taken in sequence by all students. Courses are scheduled so that students complete one course as scheduled before moving into the next. This approach accommodates full attention to each accelerated course.

During the Tusculum College learning experience, each student has the opportunity to earn college credit for experiential learning. The student is exposed to instruction related to documenting prior learning for presentation to Tusculum College faculty for assessment. A prior learning portfolio is presented to the college for credit evaluation. This portfolio includes previous transcripts, student data, student autobiography, military training documentation, certificated learning, and experiential education essays with appropriate documentation. Students maintain communication with the Assessment Center to submit and revise materials as deemed necessary for earning credit.

The third major component of the Tusculum experience is the completion of a research project. Each student receives instruction in the areas of research design, implementation, and reporting. As a practicum project requirement, each student is guided by a research advisor to identify and state a research problem which exists in the work environment. This identification is followed by the presentation of a research proposal for approval. The student then reviews literature, formulates procedures, and conducts the actual research. The documentation of these efforts, along with findings and conclusions, are formalized in a research project report which is presented to the college for final approval. This research project report follows the five chapter format and often resembles a thesis for graduate study. The experience and outcomes have served the students and their employers in quite practical (and often profitable) applications.

Quality Control

One of the major concerns on behalf of student, faculty, employers, and accrediting bodies is quality control. In reality, those who have the last word concerning the existence of the program must be convinced that quality standards are built in and maintained. Students choose to enroll or not. Faculty choose to approve or disapprove the program. Employers make decisions about providing tuition assistance to their employees (our students). Accrediting bodies provide the seal of approval or the kiss of death based on quality standards. Tusculum College staff believe that if quality control is not a major concern, then it soon will be a major concern for all of the wrong reasons.

The Quality Control System

The academic Quality Control System (QCS) provides Tusculum College with a means of monitoring the quality of curriculum, instruction, administrative services, and academic support services; furnishes the basis for assessing the effects of degree programs on students' academic and professional progress; and supports the college's efforts to supply compliance data to the accrediting associations and to federal, state and other agencies.

The system has two components: The Outcomes Review and The Academic Accounting System (AAS). The Outcomes Review (OR) comprises procedures for monitoring student outcomes such as papers, projects, and assignments. The AAS is a system of questionnaires which solicits student and faculty judgments on the success of various aspects of the programs.

The OR approach to quality control emphasizes anonymous review of student materials which have been submitted. The materials are chosen by random sample and submitted to qualified academic personnel for evaluation. These evaluations are documented for comparison purposes and provide an independent analysis of student work.

The AAS comprises six questionnaires for each academic program, five of them completed by students and one completed by faculty. The five questionnaires administered to students gather information at milestones in the program, beginning with registration and concluding with a postgraduation survey. The faculty questionnaire is completed at the end of each course of instruction. A description of each of the six instruments follows:

1. Registration Survey. This instrument is designed to identify the needs and expectations of students entering the program. It asks students to evaluate their reasons for choosing Tusculum College, their professional and personal objectives at the time of enrollment, and their skills in a variety of areas. It also solicits demographic information. It is administered by college representatives at the first class meeting.

2. Student End-of-Course Survey. This instrument, administered at the end of each course, asks students to evaluate the performance of the faculty member and the quality of the curriculum materials for that course. It also requests an evaluation of administrative services utilized during the period. The questionnaire is contained in the curriculum materials for the course and is collected and returned to the college representative by the student representative.

3. Faculty End-of-Course Survey. This instrument is completed by the faculty member at the end of each course. It solicits the faculty member's evaluation of both the

curriculum materials and the students' success with the course. It is sent to the faculty member with the agreement for facilitating the course and is submitted to the college along with grade reports, etc., for the course.

4. Program Withdrawal Form. Students who decide to leave the program are interviewed by college staff who then complete this form, which asks for an evaluation of the academic and/or personal reasons for withdrawal and solicits other relevant information.

5. Student Graduation Survey. This instrument, administered and collected by staff near the end of the instructional program, parallels the Registration Survey in four respects. Students are asked to evaluate (1) various features of the college programs; (2) the effect of the college experience on their personal objectives; (3) the effect of the college experience on their professional objectives; and (4) the effect of the college experience on their current skills in a number of areas. In addition, it asks for an evaluation of administrative services and the project/thesis experiences.

6. Postgraduate Survey. This instrument is designed to assess the long-range effects of the program. It parallels the Registration and Graduation surveys in the four areas described above. In addition, it asks graduates for information regarding the publication and implementation of the project/thesis, as well as their plans for continuing their education. It is mailed in September to all graduates from previous years.

The completed survey forms for each of these six instruments are collected and reviewed by appropriate personnel at the Tusculum College offices where they are logged in and acknowledged. From here the survey forms are sent to the Computer Center where the data are entered onto a computer system for processing and storage.

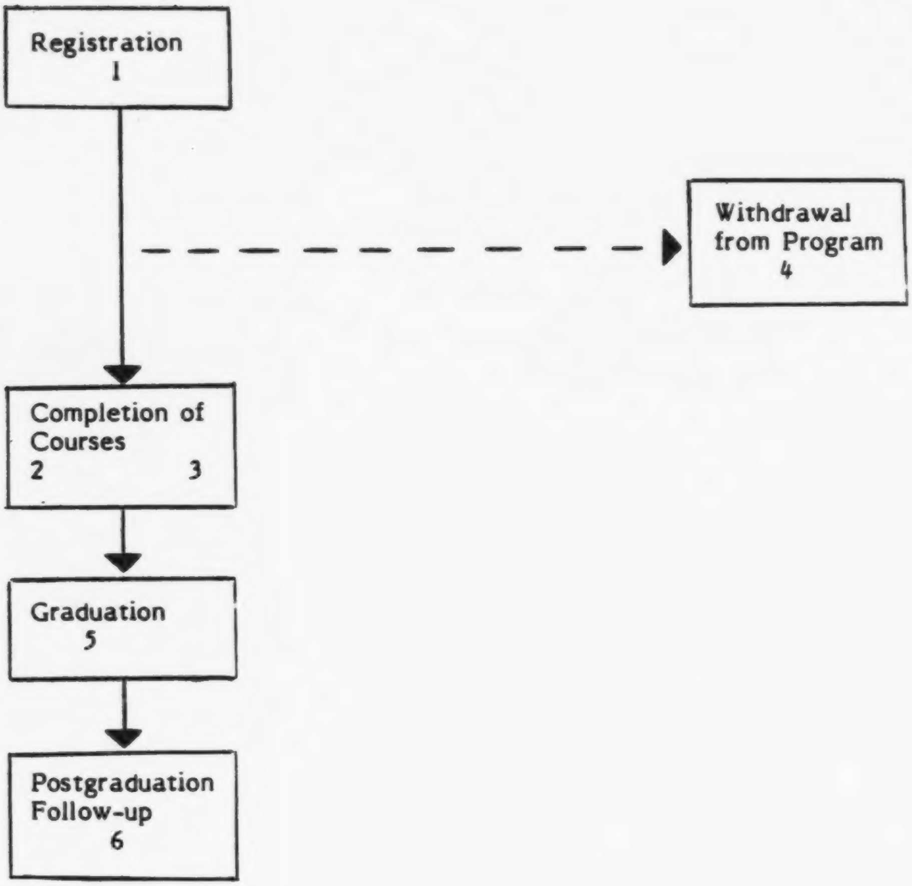
The protocols (questionnaires) are then returned to the Tusculum College office where they are retained until after the next Report to Management has been distributed and reviewed and any questions have been resolved.

The survey data are utilized to produce several types of reports. Periodic reports to management are prepared which summarize data from the Registration, Student End-of-Course, Faculty End-of-Course, and Graduation Surveys. In addition, special reports can be prepared to evaluate the performance of a particular faculty member, the opinions of students, and faculty regarding a given curriculum unit, and so on. Longitudinal research reports can be produced to explore questions regarding trends in attitudes and/or performance over the duration of a program, or from year to year of the college's operation.

Quality of the Information

The AAS has been carefully designed to provide reliable and valid information. Validity of the information is largely dependent on two factors: The appropriateness of the questions and the return rate of completed questionnaires. Literature review and experience with past forms have, we feel, satisfactorily established the domain of inquiry. The distribution-administration-collection process has been designed with a view to maximizing the return rate. In almost every instance, mechanisms have been devised which make the completion and collection (or return) of an instrument a necessary condition of such administrative functions as the posting of grades, the processing of graduation materials, etc. It must be realized, however, that a certain amount of slippage will occur in any system. Efforts could be made to ensure 100 percent completion of all surveys, but they would require additional and substantial commitment of time and money. The procedures that are used are designed to yield the maximum return with the minimum effort. Research suggests that an 80 percent return rate is the minimum which should be considered acceptable; the AAS collection system that has been created should yield this rate comfortably for all surveys that are administered while the student is enrolled in the program.

ADMINISTRATION OF AAS INSTRUMENTS



Note: Dotted lines indicate optional paths in the programs.

Legend: 1 = Registration Survey
2 = Student End-of-Course Survey
3 = Faculty End-of-Course Survey
4 = Program Withdrawal Form
5 = End-of-Program Survey
6 = Postgraduate Survey

Selection of Faculty

Tusculum College is committed to the selection of faculty/consultants who have academic preparation in the area they are teaching. The minimum academic preparation acceptable is a master's degree and five years teaching experience. Tusculum College is also looking for individuals who are practitioners of what they are teaching. Our philosophy of education indicates that instruction is provided by individuals who are actively involved in doing what they are teaching. Included in this category are fully employed individuals, professional consultants, and those who have completed their careers in the field and are now retired.

Individual Presentation

As part of the faculty assessment process each candidate will be asked to give a ten minute presentation on an issue pertaining to the subject related to the Tusculum College curriculum.

To prepare for the presentation, candidates choose an article, advertisement, editorial or other piece of information from the popular press (newspapers, magazines, and brochures) and design a presentation around it. The topic of presentation should be narrow enough to allow dealing with it in the time period provided and common enough so that a general group of people can understand it.

The style of presentation should reflect the style that would be used as an instructor/facilitator for Tusculum College. Candidates will be speaking to a group of assessors and other prospective faculty members. It is their charge to involve others, get them interested in the topic, and at the same time facilitate learning. The presentation will be evaluated on content, presentation style and ability to interact with group members.

Candidates may use any teaching style or teaching aids desired for the presentation.

Leaderless Group Activity

Tusculum College emphasizes that faculty manage their classes in an instructor/facilitator manner. This would mean that the instructor should provide information to the student and draw information from the student in an environment that respects and capitalizes on the student's work experience and success.

The Leaderless Group Activity will allow interaction with other individuals in a group to achieve consensus related to a topic provided during the faculty approval process. Each individual within the Leaderless Group will have responsibility for both leading and following a group activity. The members of this group will consist of evaluators and prospective faculty members.

Interview

Each prospective faculty member will be asked to participate in a one-on-one interview. This interview will allow the prospective faculty member to share ideas and concepts related to the area in which they propose to teach. Under most circumstances this interview would be conducted at a time away from the actual assessment process.

A UNIQUE PARTNERSHIP: IBM'S NATIONAL SERVICE DIVISION AND SYRACUSE UNIVERSITY'S SCHOOL OF MANAGEMENT JOIN FORCES

Robert M. Colley

Since 1975, IBM's National Service Division has been sending some of its most promising managers to Syracuse University for an accelerated, specially-designed baccalaureate program in business administration. The candidates are men and women who have risen through the company's technical ranks, and are now considered part of IBM's "high potential" managerial pool. These are the people who in twenty years will be running one of IBM's largest divisions, but who in many cases have had minimal formal education prior to joining the Syracuse program.

The IBM program is unique. No other AACSB-accredited management school has attempted such a partnership with a major corporation, and no other corporation has been willing to make such a strong commitment to its managers. The effort could have borne fruit only as a result of close cooperation between two large and very different bureaucratic institutions, each with its own special strengths, limitations and biases.

Background

IBM's customer service has long been considered the best in the industry. Since the days of Tom Watson, a significant part of IBM's marketing strategy has been to highlight its customer service as second to none. Research has shown, in fact, that customers often choose IBM products at least in part because they so thoroughly trust the service that backs them.

In the early seventies, as the company poised itself for a quantum leap into the multinational market, the service divisions found themselves at a crossroads. IBM's time-honored tradition of promoting from within had created a cadre of middle managers who had little or no education outside of IBM. And because of their technical orientation, the service divisions had an even greater percentage of these home-grown managers than did other areas of the company. Though they were skilled professionals who had invaluable knowledge about

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certain specific areas of the business, however, they often lacked the broader perspective that IBM felt would be necessary in the coming years' competitive marketplace.

Though IBM has arguably the most extensive in-house training apparatus of any major corporation, there was strong feeling among the service divisions' top leadership that the educating of these home-grown managers must be accomplished outside the company. When one works for a monolith like Big Blue, there is a tendency to become inflexible, to drift into the "no way but the IBM way" approach to problem-solving. The idea was to get the managers away from the company for awhile, to provide them with fresh perspectives. The solution, it was decided, was to get them enrolled in some sort of accelerated bachelor's degree program at a good business school.

But why a full-fledged degree program, rather than a standard management development program? For one thing, there was a concern that the future leaders of the service business have the kind of credibility that can only be conferred by a diploma. Secondly, most management development programs do not provide the broad theoretical background that IBM was seeking for its managers in such subjects as economics, finance and statistics. Finally, perhaps the most significant, yet most elusive aspect of the mission was to broaden the managers' cultural horizons, to better prepare them to fill future leadership roles within IBM and in the community-at-large. This, it was felt, could best be done by exposing them to the liberal arts, in addition to a variety of management courses.

Because these managers were being groomed for leadership positions within the company, they changed jobs and locations on the average of every two or three years. Typically, the pattern was to alternate between staff position at headquarters and field positions around the country. (A favorite joke among them was that IBM stands for "I've been moved.") They were never in one location long enough to finish a degree at a particular school, or if they were, their job involved too much travel for them to attend classes. It was obvious that the traditional evening-class route to a degree would not work, nor would it be possible for people in such key positions to leave their jobs for full-time study for three or four years.

So the company searched for a school that could offer a degree program flexible enough to accommodate these "fast track" managers, and Syracuse was approached for a number of reasons. It was an accredited private university located in the Northeast, and therefore relatively close to IBM Corporate Headquarters at Armonk, New York, and the service divisions' headquarters at Franklin Lakes, New Jersey. Syracuse's School of Management was well thought of, and had a reputation of being receptive to nontraditional delivery systems. Syracuse's management program also had a stronger arts and sciences component than most.

The challenge for Syracuse was tremendous--how to preserve the quality of its degree program, while meeting IBM's demands for a flexible schedule and accelerated time frame. Syracuse's School of Management and Continuing Education College together came up with a delivery system that involved a series of intensive 8-week sessions on the Syracuse campus over a span of two years, with a small number of guided independent study projects in between. In order to finish in two years, the campus experience would have to be one of total immersion--"drinking from a firehose," to use another favorite IBM expression. But these managers were used to assimilating vast quantities of information on the job, they were used to working under pressure, and it was felt that they were equal to the task.

For the most part, they have been. The program has prospered over the years, despite tremendous pressure on the students, strain on the university bureaucracy, and a number of reorganizations within the corporation. What follows is a discussion of some of the problems encountered in launching the program and keeping it going, and some of the lessons learned in the process.

Admissions and Assessment of Prior Learning

Nowhere was the contrast between the two organizations' agendas better illustrated than in the negotiating of admissions criteria. The company's internal selection criteria, of course, were none of our concern. The unwritten rule had always been that Syracuse would accept whoever IBM put forward, since they were paying the bills. Still, the candidates were to be Syracuse students, and we were a bit squeamish about having no input into the final selection process. We just had to hope that IBM knew what it was doing, in terms of selecting people that could move through an already difficult curriculum in record time. Historically, the company had actually done pretty well on that score.

The problem came with the one criterion we did try to insist upon. In order to effectively tailor the program, we asked the company to ensure that no candidates be chosen who had fewer than 30 prior credits (give or take a few), or roughly one year of college coursework under their belt. That way, they could be reasonably expected to finish the program within the agreed-upon two-year time frame. They could take 6 courses a session for 4 sessions over a two-year period, with two home study courses on each break, for a total of 90 credits. The problem was that IBM, under pressure to get the selection process resolved, used the candidates' self-reported assessments of prior credits, which often turned out later to be quite inaccurate. Syracuse could not accept credits that were not from an accredited school, or were too old, or were less than a "C" grade, or did not fit into our subject matter requirements. These limitations were all fairly standard from the university's perspective, but IBM would not necessarily have been aware of them. In this instance, a little more advance work would have saved a great deal more work in the long run. By the time we actually saw the transcripts, the candidates had already been chosen.

In addition, we discovered that a few students had been slipped into the group with virtually no college credit, which meant they could not possibly finish in two years (though some of them fooled us later and did it anyway). Of course, this meant we had to renegotiate the agreement to get everyone through in the alloted time. As it was, because we ended up with students who brought had from 0 to 80 acceptable credits from other colleges, we couldn't possible offer the same courses to all of them at the same time. Some needed all the prerequisites, while others had completed so many of the core requirements that they needed mostly electives. This meant that during a single campus session, we had to offer an many as 13 courses, which added significantly to instructional costs.

Conflicts that arose over the assessment of prior learning dramatized the difference between what counts as knowledge in a university vs. what counts as knowledge in a corporation. One issue was the acceptance of IBM in-house courses for credit toward a Syracuse degree. The American Council on Education often recommends certain "equivalence" credit for such corporate courses, but the management faculty would not allow it. Understandably, this was a stance that IBM had little patience with, though they had no choice but to defer to the university in this matter.

The thorniest issue of all had to do with the assessment of experiential learning. Students were annoyed that faculty refused to automatically waive them from coursework that was directly related to their everyday jobs. Why should they have to take organizational behavior 101 when they live it every day, for God's sake? The faculty would reply that of course there is a difference between practice and theory, and just because a person works as a manager for IBM does not mean he or she do not have some things to learn about management. The faculty would also say that they need some way of documenting waivers and anyway, students who really know the material should not be threatened by a simple waiver exam. However, students would often think the exams were off the mark or trivial. In one extreme case, a field engineer who had been installing and repairing large computers for fifteen years was penalized for failing to properly define "mainframe" on an exam. We administrators were torn between wanting to accommodate the student and wanting to defend university policy against unreasonable attack. The upshot of all of this controversy was that when the evaluations were finally completed, students had far fewer credits than they had expected, and this caused a certain amount of resentment at the start of the program--just at the time when we were trying to generate goodwill and optimism about the experience ahead.

Program Format

The program format was of course a compromise--a good one, under the circumstances, but not without trade-offs. IBM didn't want their managers out of the office any longer than a few weeks at a time, yet they needed to have them back to work permanently after two years. We tended to look at the costs of the program in terms of tuition, room and board, books, travel, etc. For the company, costs were measured largely in terms of the time lost from these highly-paid manager's working schedules.

The program was seen as a sort of perk within the company, and those selected really had a sense that they were among the anointed few. The company, after all, believed in them enough to send them to Syracuse, all expenses paid, for weeks at a time, to get the degree they've always dreamed about--while keeping them on full salary, no less!

But of course this was a very double-edged sort of privilege. All eyes were on them, and they had better not fail! Just how much psychological pressure the students were under was brought out in their fear about grades being revealed to the company. IBM and Syracuse had an agreement that information about grades would be confidential, as with any university student. On the other hand, IBM administration wanted, not unreasonably, to know if they were getting they were getting their money's worth. So we gave the company minimal information about anyone who was in real academic trouble, on a strict need-to-know basis. As many times as we would reassure the students, however, they were always convinced that the company was scrutinizing every grade and making significant career decisions on that basis.

The accelerated pace of the program caused problems for even the ablest of the group. The schedule was such that students were in class virtually all day, from 8 to 6, five days a week (except for lunch), and had to use evenings and weekends to study and do assignments. There was virtually no other way to pack the requisite contact hours of a fifteen-week semester into eight weeks.

On the whole, the students held up admirably, though there were isolated instances of anxiety attacks, stress-related back problems, overindulgence in alcohol and pills, and divorce. From an administrative standpoint, it was more labor-intensive than we ever imagined. One serious question that must arise: how much do the students actually retain in such an environment? If we are honest, we have to say, not as much as they would under "normal" academic conditions. The students' constant concern, apart from having to sit through class all day, was that there was not enough time between classes to properly assimilate the material. And this, of course, led to pressure on the professors to ease up on the course requirements. With each program, however, we saw a pattern establish itself. If the students survived the first session, they became increasingly adept at coping with the pressure of subsequent ones. This we referred to as the "boot camp" phenomenon.

The independent study segment of the program was not as successful as we had hoped. Once they returned home to jobs and families, they were too distracted to pay proper attention to assignments from far-off Syracuse. They continually overestimated the amount of work they could tackle between campus sessions, and for a time, there were a number of incompletes that had to be given for the intersession work.

A final problem with the format had to do with those students who entered with no prior academic credit. Since they were not scheduled to finish in the allotted four sessions, they tried to load up unrealistically on courses, and who could blame them for wanting to graduate on schedule with their classmates? We tried to give responsible academic advice, and sometimes had to just say "no" to these requests for more coursework, and to devise creative ways for them to finish the Syracuse degree after the contract was expired.

Student Services

Given all the pressure the IBM students were under, it was important that we provided them with as much academic and administrative support as possible. The problem was--what counted as adequate student services? IBM was paying handsomely for the program, and they were very demanding when it came to how their managers were treated. The managers themselves were even more demanding, if that is possible. To be fair, it was difficult for them to make the transition from managers to students--they were used to a great deal of deference from those around them, and they lived in style whenever they went on assignment. Now, here they were on another assignment, and instead of a luxury hotel, they were put in a converted dorm with old furniture (and old non-IBM computers!). From our point of view, the facility we housed them in was ideal for the group. It had fifty beds, its own kitchen and dining facilities, three classrooms, and two students lounges. It afforded them privacy and security, and did not subject them to the distractions of typical undergraduate housing, yet was within convenient walking distance of the central campus. We fed them well, brought the teachers and tutors to their facility, and in general, spoiled them, by usual campus standards. We even agreed to have their books and supplies delivered to their rooms, and when the university bookstore could not accommodate their wishes, we went to an outside vendor.

In retrospect, however, we probably overdid it, and in a way created a sort of Frankenstein's monster. There were some students who expected graduate assistants to run errands for library books and supplies, and expected tutors to come to their rooms on a Sunday morning for special sessions. The company was eventually in agreement with us that the students did not need quite as much coddling as we had been giving them, and that it probably was not the healthiest college experience for them never to have to leave their dorm. The few times when we did schedule a class or lab outside the facility, there was some initial protest; but the students came to appreciate the opportunity to see a bit more of the university.

A whole other dimension of student services had to do with the challenge of marshalling the university's resources in unaccustomed ways to meet the administrative needs of this special program. Not only was it difficult to get faculty and classrooms scheduled at odd times, but the IBM sessions were so out of sequence with the normal campus schedule that there were continual problems with the records-keeping and other services provided by other campus departments such as the bursar and registrar. Until a good deal of time was spent negotiating with these other offices, registrations or grades would be lost or improperly recorded, inappropriate bills would be sent to individual students, and students would be barred from taking books from the library. The university just wasn't used to having to do things so differently, and the IBM students, like good managers, were used to having to problem-solve quickly. They had a hard time understanding why the university's decision-making apparati moved so slowly.

Faculty

Some of the best professors in the university agreed to teach in the program, despite some reservations about how to encapsulate a semester's worth of lectures into eight weeks. (A few told me they thought the program was pedagogically suspect, and refused to teach in it). One of the big selling points was that this would be among the best audiences a teacher could find--bright, committed adults with a wealth of professional experience, who really wanted to learn. At times, I privately worried that the faculty would be equal to the students, especially in the areas the students were most familiar with. As an example, students in a systems analysis course told me that the professor was teaching flow-charting techniques that were about five years out of date. (The teacher's response was that they just didn't like to hear about ways different from IBM's.)

Finding the right faculty for the IBM program was always a tremendous challenge. The problem was, what counted as good teaching? We were not always in agreement on that. At times, however, I felt that the student's criteria were somewhat superficial. Remember, IBMers still are required to wear white shirts in the 1980's, and the sight of a philosophy professor in a beard and old jeans was very off-putting to them, no matter how brilliant he may be. There were some professors who were able to overcome this sort of initial prejudice, but things like speech mannerisms and bizarre dress styles, often treasured in the academic community, were looked upon with disfavor. Most if not all of these students had had rigorous in house training on how to do corporate presentations, and this was the yardstick against which these professors were often measured. In some cases, the students may have been correct in criticizing a teaching performance. (It is an axiom in academia that professor's pedagogical styles, as atrocious as they may be, are as sacrosanct as their academic freedom). On the other hand, the liveliness of one's style, or the elaborateness of one's visual aids, do not a great teacher make.

The most successful teachers were the ones who could combine obvious mastery of the material with a relaxed and humorous presentational style. The worst were the ones who persisted in treating the IBM people like typical undergraduates. One hapless fellow, who tried to establish control early on, was known as "Call me doctor but don't call me at home" Jones. He had set the wrong tone, and as good as some of his material was, he never fully recovered.

In some cases, the professors got quite an education about life in the business world. It was sad at times that there was not more of an exchange between the academics and the practitioners, but too often egos got in the way and the opportunity for dialogue was lost. Since they were often on the cutting edge of many areas of business, the students could not understand why more professors did not seek them out and pick their brains a bit more. At the other extreme, some lifelong friendships were made.

Curriculum

The IBM program afforded a unique opportunity to do something creative with the curriculum. True, a number of the courses were required, and while students didn't often agree with what should be included in the core, we had full company support in that regard. Beyond the core courses, however, the degree called for a number of electives, both in business and in each of the four arts and sciences areas--the humanities, the social sciences, the hard sciences, and mathematics. We consulted the students to an extent on this matter, but since there was never much of a consensus from the group, we mostly exercised our own judgement. To its credit, IBM was very supportive about such experimentation. As long as we could provide a list of courses in advance, along with a rationale for their inclusion into the program, the company seemed content to trust us in curricular matters.

One professor came up with a new course called "conceptual foundations of management," and invited scholars from disciplines such as philosophy, sociology and psychology, to talk to the class about how their research could have some bearing on the practice of modern management. This turned out to be a popular course, and is now offered on campus on a regular basis. We brought in a creative writer and journalist to do a course on business writing, which also turned out very well. Perhaps the most daring experiment was the course on creativity, taught by a team of art professors who had the students doing collage photography, and painting. The students resisted at first, because they could not see the point of the course, but many told us afterward that it had the most impact on their management style of any of the offerings.

Most of the initial resistance was aimed at the liberal arts courses. The students tended to be impatient with subject matter that would not be of use to them "on Monday morning." As one of the students said, "I can't believe we're spending our time studying a bunch of rocks!" ironically, by the end of the program, the courses for which students reserved highest praise were in history, art, religion, geology and astronomy. They didn't realize until later how much they were broadened by the exposure to these other subjects. As one said, "Now I can talk to my son about the stars."

Conclusion

Despite the hard work, and problems, the IBM program has been definitely worth doing from every perspective. We have made our share of mistakes, but each incarnation of the program runs more smoothly than the last, thanks in large part to graduates' input and a good working relationship between Syracuse and IBM administrations.

From the university's perspective, there are obvious benefits to be derived from the corporate connection. The new School of Management building, after all, was built mainly with corporate funds, and there is always the prospect of donations of high tech equipment and executives serving on advisory boards. Thanks to the IBM program, Syracuse has a new group of highly visible and affluent alumni. If school spirit can be measured by how much Syracuse paraphernalia has been purchased at the university bookstore, this group of alums must surely take the prize. Now that they have graduated, several of them have enrolled in some of the university's part-time graduate programs, and others have now sent their children to S.U.

From IBM's viewpoint, the program has been a success. Nearly all of the candidates have finished their degrees on schedule, and many of them have gone on to greater positions of responsibility in the company. It is difficult to know just how much of their subsequent performance has been enhanced by their experiences at Syracuse, but it is hard to believe that the personal and intellectual growth they've attained through the program is not reflected in their managerial decision-making.

Many of the students now say that the IBM program was the most important growth experience of their lives. Apart from the intellectual and professional benefits, they speak of the personal satisfaction they have gained from overcoming such formidable obstacles and proving themselves to their friends and families. Beneath the bravado, there was often an insecurity about their inadequate academic past that no longer haunts them.

There is one other effect the program has had on a few of the graduates. While most of them have returned to work with an even greater loyalty and commitment to "Mother IBM," a few are having second thoughts about being "lifers" with the company, and wondering about alternative ways to spend the rest of their lives. Some of this is probably inevitable, since, as John Dewey reminds us, real education involves profound change. It is to IBM's credit that the awareness of the possibility of such unforeseen results does not discourage the company from continuing to invest in its people.

USING INSTRUCTIONAL TELEVISION
TO BRING THE UNIVERSITY TO THE CORPORATE WORLD

Joan De Rooy

As colleges and universities seek new markets of potential students; corporate students are looked at as a well defined and often well supported target audience for higher education.

Many corporations and corporate educators, recognizing the value of an educated work force, have become increasingly committed to providing and supporting on-site educational opportunities for their employees.

As a result of the interests and needs of both groups, it appears that now is an optimum time for colleges and universities to explore expanded joint educational relationships with the corporate world.

This session will review the uses that colleges and universities have made, and are making, of television for general instructional purposes.

It will highlight the experiences that a small, private university has had as it has learned to effectively use a live and interactive television system to deliver their graduate, undergraduate, and professional development courses to corporate receive classrooms in a 60 mile radius of their campus.

The information and experiences discussed are presented not only to provide general information on a timely topic, but also to stimulate the readers' thinking about the barriers, challenges and commitments necessary for the establishment and maintenance of an instructional television project at their college or university.

It is the premise of this presentation that the potential for impacting the higher educational needs of the corporate community with University-sponsored instructional television offerings is an area that shows particular potential for growth.

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Overview

Whether we like it or not, technology surrounds us. Video recorders, computers and television are commonplace in the everyday conduct of our work and personal lives. So, it is not surprising that innovative educators continually examine and implement new and improved ways of using these powerful tools to facilitate educational goals.

One innovative and student-responsive use of technology to meet educational goals is the use of television for instructional purposes. Instructional television(ITV) has experienced a phenomenal growth during the last two decades.

University-Corporate instructional television efforts offer both communities an important opportunity to link the educational goals of institutions of higher learning with the educational needs of corporate America. It appears, further, that this linkage has great benefits for all concerned.

When ITV brings the university's offerings to corporate classrooms, it reaches students who might not ordinarily have ready access to campus offerings, but who nonetheless are excellent additions to the college's or university's student body.

A Historical Perspective

The use of television in non broadcast settings... education, business, medicine, etc. has expanded rapidly. Since 1970, non broadcast television has grown at the rate of about 40 per cent per year.

The decreasing cost and size of video equipment coupled with its increasing reliability and ease of operation has opened the possibility of becoming involved in non broadcast television to even small colleges and universities.

In a survey done by the Corporation for Public Broadcasting and the National Center for Education Statistics on all of the uses of television by colleges and universities in the United States; it was determined that approximately seventy-one per cent of the almost 3,000 colleges and universities studied made some use of television Sixty-one per cent used television for instruction, twenty-five per cent offered courses over television and thirty-six per cent used television to supplement existing courses.

Seven-hundred thirty-five colleges offered a total of 6,884 courses over television. Those colleges enrolled almost half-a-million students in the television courses, an average of nine courses per college.

These totals were skewed by a few colleges that offered exceptionally large numbers of courses, enrolling large numbers of students. In reality, the most common experience was for a college to offer a single course over television and enroll 20 students.

On-campus instructional uses of television were found to be about three times as prevalent as off-campus instructional uses, and credit uses were five times as common as non-credit uses.

The survey also indicated that colleges worked with a wide variety of television distribution outlets including campus closed circuit systems (60%), public television stations (47%), cable systems (28%) and commercial stations (25 %). The campus closed circuit system was the sole or primary distribution outlet for 42 percent of the colleges; the public television station served that capacity for 22 per cent of the colleges.

Some colleges were also found to play an active role in the distribution of telecourses, especially by producing courses and co-producing courses with the television outlet and by acquiring the courses which are distributed.

Thus, the use of television in a wide variety of ways is not new to many colleges. However, with some notable exceptions, only a small proportion of even television-involved colleges and universities, have thus far established television links with the corporate world.

The Development of ITFS Systems

Shortly after the first educational television (ETV) stations came on the air, it became apparent that single-channel open circuit broadcasting channels could not meet all of education's needs. As a result, multichannel closed-circuit systems were looked at as an answer.

In 1961 a successful test was conducted of a new limited-broadcast technique, the Instructional Television Fixed System (ITFS). ITFS uses the upper reaches of the UHF spectrum.

ITFS is a an over the air delivery system that is "closed" open-circuit. Technically speaking they are open circuits, but they are not broadcasting stations in the sense that they can be picked up by the general public.

One good working definition comes from Ryan in "The Case for ITFS" (Educational and Industrial Television, March, 1974). He says that ITFS is "in effect, a multi-channel, owner-controlled, closed-circuit, inexpensive system capable of covering a large geographic area".

The ITFS system requires a special receiving antenna and a down-converter. This allows for the transmitted channels to be viewed on an ordinary television set. The ITFS system is not feasible for ordinary home reception or for any widespread broadcasting applications. It is rather designed to send a signal only to those locations that are prepared to receive it.

ITFS stations are limited in power, but they are nonetheless capable of covering an area up to 60 miles in diameter from the sending studio. There must be line-of-sight established between the receiving and sending points.

While there are some limitations to the system, the advantages of the multi-channel capability, plus the relatively lower transmitting equipment costs (price of a single ITFS transmitter can be only 5 to 10 percent of the cost of a high-power UHF or VHF transmitter). Further, the relatively low cost of the necessary receive equipment makes it ideal for educational systems.

Interactive ITFS

The term "interactive" in association with ITFS refers to the fact that most ITFS receiving locations are equipped with microphones and an audio transmitter that allows for direct communication with the studio classrooms. These interactions may be transmitted by microwave or over modified phone lines. Almost all of the live transmission ITFS stations have interactive capabilities.

Interactive systems allow all participants at all locations to speak and to hear each other. Questions and comments are transmitted throughout the system. Instructors can question and solicit comments and students can question and respond in a true classroom relationship.

Interactive ITFS allows for the added dimension of immediate feedback and live presentation. This system of transmission more closely models the actual classroom experience of give-and-take between students and instructor. The use of an interactive system appears to make an important difference in the real and perceived power of the medium.

Instructional Television at Houston Baptist University

Houston Baptist University established a Division of Instructional Television in 1984 to operate the University's instructional television project, HBU/TV.

HBU/TV is a subscriber-only system which is able to reach locations within a sixty-mile radius of downtown Houston.

The system allows adult working professionals not only to attend their classes at member corporate locations, but also to have all services provided to them at their offices.

HBU/TV began broadcasting in March of 1984 with graduate courses for area teachers in regional school districts. While the programming was well received by those who participated, adequate enrollment was not achieved to warrant the continuation of these efforts.

One variable, contributing to the limited enrollment by educators, appeared to be the relative lack of any financial support by the school districts for the teacher's educational goals.

In contrast, corporate offerings, which began in September of 1984, have had excellent financial support from the participating corporations for their employees. Corporate students participating in the HBU/TV project are reimbursed by their companies in an amount ranging from 75 to 100% of their tuition and fees.

The reputation of the university coupled with the accessibility of the company equipped classrooms and the financial support given by their companies for their education, are cited as being the major factors which encouraged corporate students to pursue their studies via HBU/TV.

While many of these busy adult working professionals had "planned" at some time to continue their education; they often delayed that time to the distant future. Having an HBU corporate classroom at their work place, has made the dream of higher education goals a reality.

What HBU/TV "Delivers" To The Corporate Subscriber

HBU/TV is a delivery system for the University. At the present time, it presents the offerings of two University entities: the College of Business and Economics and the Division of Professional Development.

While there is some accomodation made in the servicing of HBU/TV corporate students to meet their special circumstances; corporate ITV students are fully enrolled HBU students and meet all of the University's criteria for admission and retention.

HBU/TV students resemble their campus classmates in every respect, but physical location.

By all reports, the corporate students are performing academically at least as well as their campus counterparts. This experience is supported by the experience of other ITV delivery systems.

Credit Programs

Houston Baptist University's College of Business and Economics, offers the a complete business graduate degree program via HBU/TV, the Master of Science in Management (MSM) degree. The administration and faculty of the College are responsible for all of the academic and content issues related to this degree, as well as for the recently added undergraduate business core courses.

The MSM began in the Fall of 1984, with only one course per quarter. The schedule currently offers three courses a quarter. This schedule allows the corporate students to proceed at the same pace as the campus students.

The first students to complete their MSM degree completely via HBU/TV, did so in the Summer of 1986.

Undergraduate courses from the business core have been offered by the College of Business and Economics since September of 1986. Currently, two courses per quarter are offered. One is on the air at the lunch hour, three days a week and the other is offered on a weekday evening. While a full undergraduate degree program is not currently possible via television, the courses are meeting a wide variety of needs for progress towards an undergraduate degree.

Continuing Professional Education

Non-credit and continuing education professional development workshops, seminars and short courses were added to the HBU/TV line-up in early 1985. These daytime offerings bring relevant and dynamic business topics to corporate employees.

Presented by HBU's Division of Professional Development, these seminars are well attended and received. They are also most cost-effective for the participating companies.

Because of the "pooled resources" concept of sharing expenses when several companies enroll students in the same seminar, companies pay only a fraction of what the same offerings would cost them if contracted for on an individual company basis.

The Division offers a wide range of popular business workshops, seminars and short courses and is responsible for their content. These programs are taught by experts in the topic areas and are delivered to the corporate locations in the same live and interactive manner as the credit courses. The topics are all chosen by the subscribing members, and are open to all company employees.

The Professional Development offerings give the participating companies a wide-range use of the HBU/TV system for training and education for all of their employees; not just those who are currently in pursuit of degrees or credit courses.

Further, exposure to the professional development non-credit programs often encourages individuals to explore the credit programs. Once they see how convenient and effective using the system is, they are often more open to pursuing credit studies.

How The System Works

Since HBU/TV was planned to give participating students the opportunity of having both the university offerings and services brought to them at their work place, HBU has instituted appropriate steps to meet this commitment.

All orientation, registration and advising is conducted at quarterly sessions held at company facilities. A team made up of representatives of the College of Business and Economics, the undergraduate and graduate admissions offices and the Division of Instructional Television participate.

A courier picks up and delivers books and other instructional materials and brings them back and forth between the university and the companies on a regular basis. While the courier is regularly scheduled for twice a week, "runs" are made on exam days and other special need days.

Students interact with their professors and fellow students using "talk-back" microphones. This device allows all students to be front row students. As soon as the microphone is tapped, the student is in immediate contact with the instructor. The microphone fosters easy and natural interaction between the instructor and individual students.

Classes missed because of illness or business commitments (within the schools regular attendance policy limits) can be viewed by participating students by watching videotapes of the class, which are available either at the company or through HBU/TV. These tapes are also used for review by the participating students.

Exams are proctored on site by either a delegated company representative or a representative of HBU.

There is much focus in the Division of Instructional Television on providing the personal service and attention that all HBU students are used to. Many phone calls and courier runs relate to keeping the system working smoothly and in a student-friendly manner.

The Student Experience

Some informal findings related to the experience of the HBU/TV corporate student body is very encouraging. Perhaps because of their proximity to each other in their work place, several phenomena are evident.

The first is that a real support group emerges in each company. Full time working students study together and support each other in the demanding process of pursuing educational goals.

Once a student has taken several courses, attrition is low. This may be at least partially attributed to the support from their company group.

Company-wide networking is another fringe benefit of corporate students studying together. People enrolled in the same program feel much freer to call on each other for information and support in their work roles. This makes for pleasant and productive working relationships within the participating company.

In line with the findings of other schools (Stanford University, British Columbia Institute of Technology) ITV students do at least as well academically, and often better than similar campus students. Perhaps being relieved of the time and energy constraints of commuting and coming to campus for other non-academically related services, makes for a somewhat more rested and attentive student.

In general, the students participating in the project express the highest praise and support of the program. HBU's goal of meeting the needs of an appropriate group of students who they might not otherwise reach is being realized.

The Instructors' Experience

Instructors who come across best on television have an enthusiasm which their body movements, facial expressions and varied use of voice conveys. Some people naturally have this "presence"; some can learn it, some seem unable to. This ability is desirable in any instructor, but it is essential in the television environment.

HBU has been fortunate to find that both the instructors who were "naturals" for tv and those who had to work on it, have been well received by the students. Even those HBU professors who began with very real reservations about the television delivery system have mastered the techniques, related well with the students, and have become supporters of the students and the process. It is very likely that when you start with a superior faculty, there may be very few if any, who can not do well in the televised classroom.

Research has shown that teaching on television is at least as effective as conventional instruction. Some studies show that it may be more effective in some settings when the teaching is enhanced by the use of the medium.

A session to familiarize each new instructor with the tv studio and the capabilities of the medium is held and general guidelines are provided. Basic information such as eye contact with the camera, camera-friendly dressing and the use of voice, hands and expression are discussed.

In the final analysis, however, instruction on television is an on-the-job skill building experience; with each instructor finding his or her style of relating to the camera and to their out-of-sight students.

Faculty support for televised instruction is a crucial factor in the success of an ITV project. The good reception of the HBU/TV project by the companies and students is to a large part a function of the HBU faculty support that has been given by the first and current television instructors.

How Companies Participate

Any company within the service area of HBU/TV (approximately a 60 mile radius of downtown Houston) may install a receive classroom at their facility. There is a one time capital outlay for equipment and to prepare the classroom/s. There is also a monthly fee paid for maintaining their system.

At this writing nine major companies have students participating in the system. The first to participate was Texas Eastern Transmission Corporation. They were quickly joined by Transco Inc. and Aramco Services Company. Now, Dow Chemical U.S.A., Enron Corp, Midcon-United, Phillips Petroleum, Shell Development, and Texas Instruments. Another four or five companies are anticipated to join during the next year.

Current Status Report On HBU/TV

HBU/TV has shown a steady growth with each quarter of operation, as new students in current companies enroll and as new companies and their employees enter the system. The Fall '86 quarter had over 120 registrations in credit courses. In the last year almost 500 participants were involved in non-credit offerings.

New services from HBU/TV are being implemented. HBU/TV's studio does video production for individuals and companies in the area. Teleconferencing capabilities are being offered. Satellite hook-ups are available. All of these efforts are expanding the range and potential of the project.

The financial commitment to capital equipment and operating funds to this project, on the part of the HBU Board, has been substantial. Like virtually all other new ITV projects, HBU/TV has yet to pay its own way financially. The projections indicate that it will meet its operating expenses by the end of this fiscal year (June, 1987) or early in the next year.

The experience across the country is that there is almost always a five year start-up period for ITV operations during which time the project must be subsidized. However, the potential for income generation once the project has reached a critical mass of students is very positive.

The project has had some very positive benefits to HBU that have not all been directly translatable into dollars. HBU/TV has received good press coverage in local newspapers and magazines as well as within the company supported newsletters.

The project has been presented to virtually every major company in the greater Houston area. All of this has given HBU high visibility as a leader in an innovative and corporate responsive manner. Some corporate financial contributions have come to HBU as a result of appreciation for the TV project, and this source is just beginning to be tapped.

Conclusion

Studies have shown that the major barriers to the use of television for instruction at colleges are: lack of adequate institutional support; lack of available courses which meet the academic needs and standards of the institution and lack of faculty support for the use of television for instruction.

Perhaps not surprisingly, the three factors which contribute most strongly to the use of television at other colleges are: strong institutional commitment,strong faculty commitment and availability of appropriate courses.

What this boils down to experientially is that an ITV project must:

- have support at the highest levels
- have support at the faculty and staff level
- have a product, and a market that is interested in that product.

Before a college or university considers instructional television as a part of its mission and outreach, it would be wise to be assured that the above factors are present at their institution.

CORPORATE EDUCATION PARTNERSHIPS:

A CASE STUDY OF ONE EDISON/CORPORATE AGREEMENT

Sonja A. Eveslage and Iris Saltiel

This paper shares a case study outlining the relationship between Thomas A. Edison State College and a major corporate employer (named MCE for the purposes of the case study). MCE was selected as the client organization because the relationship turned from temptuous to collaborative as it progressed through three different contractual agreements over a number of years. The paper first summarizes the major events over five years. Then the marketing approaches, the strategies, and the negotiating posture used in each will be analyzed to derive the key elements that contributed to creating a collaborative relationship. The presentation will expand these insights further and provide participants with guidelines to assist in managing their own corporate outreach efforts.

Background. In 1983, when Edison decided to strengthen its corporate outreach efforts, an office of corporate programs was established and energies were devoted to systematizing the efforts. In selecting potential markets, for example, staff looked for industries that: (1) had concentrations of employees who might benefit by Edison degrees; (2) had some potential for providing those potential students advanced standing toward a degree through evaluated training programs or work experiences that could be documented as college-level through testing or assessment; and (3) provided some impetus and

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support for employees to complete degrees. MCE fit these three criteria, and as a large employer viewed as an educational leader within its industry, MCE was especially important to Edison as a corporate client.

History of the Edison/MCE Relationship. The road to developing the present working relationship between Edison and MCE was long and rocky. From the perspective of present Edison management, the details surrounding the first encounters between the two organizations are somewhat elusive. Some discussion occurred in late 1981 during the first year Edison managed the American Council on Education's PONSI program in New Jersey but no activity followed. Whatever actually ensued, MCE perceived that Edison had not been responsive to their requests for information and service.

The company's dissatisfaction was heightened in 1984 when Edison's new president became aware that MCE had contracted with an out-of-state organization for services that could have been provided by the College. He wrote to MCE's CEO arguing that New Jersey business should do business with New Jersey colleges. The letter was channeled to the training director who was asked for information about the earlier action and was apparently urged to do business with Edison.

As a follow-up to the letter, a meeting between Edison's corporate programs director, the training director, and their staffs was held in the Fall. Although MCE staff expressed displeasure at the strategy employed to get his attention, the result of this meeting was MCE's requesting a proposal to meet an immediate higher education need identified by the company. The College responded with a written proposal that outlined two alternatives, analyzing the costs and benefits of each. MCE selected the alternative, which, in the view of the College was short-term, less effective educationally, and more costly in the long-term. But, nevertheless, an agreement to provide College services was reached. The task of establishing an effective working relationship remained.

The contracted service was provided, and staff paid meticulous attention to detail, monitoring every academic service to assure they met the College's highest standards in an effort to establish the College as a good place to do business. But the working relationship remained rocky. After the specific project was completed in 1985, continuing contact was maintained and a second request for services was forthcoming. In this second contract, MCE requested a small service for a limited number of their employees. Again, the service was closely monitored, but the Edison account executive felt little progress was being made in working effectively with the corporation.

Then some changes were made. A new staff person was hired in May 1986 and assigned to work with MCE. This person analyzed the relationship from a fresh perspective and provided significant insights into establishing a working relationship. At the same time, the program adopted some apparently subtle changes in marketing strategies. Increased emphasis was placed on portraying available services as a response to corporate educational needs. And the role of the account executive shifted slightly from problem-solver to problem-solver/resource broker thus altering the process for matching needs and services.

In the resource broker role, the account executive arranged a meeting that was key in creating a positive relationship. At the lunch that preceded the business meeting, the key MCE decision-maker to be involved was invited to sit as a member of the College's newly established corporate advisory board. The working meeting included this MCE decision-maker, key Edison policy makers, and staff who would implement any program. Together, this group redefined the educational problem the company perceived and outlined the major components of an academically credible solution. This meeting turned the tide in the working relationship. From a strategic standpoint, the meeting was effective for a number of reasons. On one level, a meeting that brings together decision-makers is characteristic of MCE's style of doing business and adopting that format helped demonstrate the College's interest in MCE's needs. On a substantive level, the meeting allowed restating and beginning to resolve the academic issues involved in making the collaborative project work.

Although the meeting did not resolve all issues, it set the appropriate tone. Follow-up internal meetings at the College and the corporation were conducted. In addition, appropriate contact was made with other other educational providers to be involved in the agreement. After several discussions, a written proposal was submitted for review. Although pros and cons of various alternatives had been discussed as the proposal components were considered, the College presented in writing only what it considered the best alternative. The written proposal was submitted for review, asking if the alternative presented met MCE's needs. In other words, the decision requested differed from "choose one" to "this could be improved by . . ." And finally, requested changes were made and implemented. Agreement was reached in December 1986, and work is proceeding on implementation.

What Happened to Turn the Relationship Around? The key questions for the corporate programs staff were, "what happened to turn the relationship around? and, even more important, "what general rules can we draw from this case study? To answer these questions and put the insights gained to future use, Edison staff synthesized their own experiences then searched the literature looking for frameworks that would help define the changes in ways that would allow defining rules for future application.

The staff's best sense was that a collaborative relationship had been created from one that was, at best, strained. To get a sense of what contributed to the change, key components were charted. Staff examined the decision process itself, the market position used by the staff, and the results achieved. The differences are summarized in Chart I, Characteristics of Three ESC/MCE Contracts. In each agreement, the decision process included the problem definition, the presentation of alternatives in a proposal format, the decision requested, and pricing. In general, the decision-process applied in the most successful venture brought together educational experts who relied on give-and-take in defining and solving the problem. This process demonstrated rather than described the College's expertise in the issues at hand. And the College's marketing posture (as defined by the market position and the staff role) led to and reinforced the role of the College as educational expert. A positive working relationship resulted from the meshing of market position and decision process.

CHART I. Characteristics of Three ESC/MCE Contract Negotiations

	Contract I	Contract II -	Contract III
Problem	Corporation defined	Corporation defined	Jointly defined
Proposal Format	Two alternatives outlined/Pros and cons of each listed/ Cost alternatives listed	Single corporate alternative listed/ Cost listed	Best alternative described/Cost listed
Decision Requested	Choose one	Accept/Reject	Review/rework
Pricing	Student Fees + Fee for Service	Student Fees + Fee for Service	Student Fees + Management Fee
Market Position	College providing flexible services	College offering quality, flexible services	College offering education expertise/access to resources
Staff Role	Sales Person/ Account Manager/ Provider	Sales Person/ Account Manager/ Provider	Resource Broker/ Account Manager/ Provider
Corporate/ College Relations	Strained	Strained	Collaborative

The analysis was revealing in identifying important elements and describing the differences at each point, but the process question remained, i.e. "what steps did we go through to contribute to changing our approach?" Perhaps the most useful framework for analyzing the internal situation at MCE and thus developing a strategy for dealing with it is the growing literature on organizational culture. The general sense of the literature is that organizations have their own rules for operating and their own set of values underpinning the operations. Learning to be sensitive to these differences serves the same purpose as learning to appreciate a variety of ethnic and cultural backgrounds. It enhances communication and allows selecting an approach effective for that setting. Perhaps the most useful framework for analyzing culture is provided by Edgar Schein in Organizational Culture and Leadership. After reviewing the definitions of culture used in the literature, Schein summarizes them but identifies them as attributes that can help describe an organization's culture. Applying them to the Edison/MCE situation helped clarify the decisions that had been made somewhat intuitively in the process of developing the new agreement.

Schein identifies regular behavior, norms, values, philosophy, rules, and feelings or climate as key characteristics. These six variables together create a checklist that can be applied to any organization and can be used as a planning tool. When they were used to analyze both the College and MCE, major operating differences were identified. The observed differences are identified on Chart II, ESC/MCE Cultural Differences. The chart, in many different ways, references the hierarchical nature of MCE. That single component helped describe the company's decision-making and operational styles.

Two points can be made about using the analysis strategy suggested by Schein's work. First, identifying the differences allows modifying behaviors in ways that can increase effectiveness in working within the organization. Thus, observing that the corporate style involved bringing together many participants for meetings led to bringing many Edison staff to their site for a meeting. Second, and equally as important, is that the corporate culture helped describe its expectations for an external educational provider. The company seems to value effective problem-solving combined with service that responded to their needs. As an example, Edison's

CHART II. ESC/MCE Cultural Differences*

	ESC	MCE
Observed Behavioral Regularities	Responsive to client/ willing to alter presentation of product	Responsive to internal decision-maker
		Company decorum a must
	Meeting include those required	Meetings include many
Norms	Less hierarchical/ organizational lines easily crossed	More hierarchical
	Account executive empowered to promise/manage results	Corporate liaison allowed to work within contractual framework
Dominant Values	Academic Integrity/ Quality Key	Educational Programs Support Business Goals
Philosophy	Good service gets good results	Be industry leader in education area
Rules	Solve client problems	Solve corporate problems
	Fit into client climate	Complete tasks promptly
	Get the job done	
Feeling/ Climate	Flexible	Hierarchical

*Characteristics described in Edgar H. Schein, Organizational Culture and Leadership. Jossey-Bass Publishers (San Francisco: 1986), p. 6.

account executive reconfigured the charts describing the program several times. The service was responsive to corporate needs because it recognized that the communication must be in a form usable within the company. From the College's side, describing the agreement in different ways was a nuisance task--one that had to be completed but that did not alter the substance of the service delivered.

In summary, this paper has offered analysis strategies useful in planning or evaluating corporate outreach efforts. In addition, the case study offers a major lesson. That is, an operating style that recognizes and respects the client organizations' style and needs will be most effective in serving the client's needs.

Key Elements of Success. Several elements were key in contributing to the development of the most recent agreement and the collaborative relationship it represents. These are listed below and they provide the basis for a checklist:

1. The College's revised marketing approach better conveyed the value of the services available. Edison did not alter its mainstream academic services but only described them better.

2. A fresh perspective that included a recognition and respect for the cultural differences opened the doors anew and allowed the working relationship to begin anew.

3. Asking (or asking again) the questions about the MCE's higher education needs and their perceptions of the problems and solutions led to a redefinition and simplification of the problems faced. Consequently, agreeing on a solution was also easier.

4. The new account executive brought a determination to succeed, an ability to recognize the corporate climate, and a willingness to work within the rules in order to be effective. (Note: This approach affects process rather than substance, e.g. asking for a corporate review of the proposal allowed phrasing that was meaningful to the company without changing the College's product.)

5. The College brought a negotiating posture to the discussions. The process of developing, submitting, and reaching agreement on this proposal differed substantially from earlier ones. The overriding message was, "We want to work with you. Are we meeting your needs?"

6. The form of the communication differed substanttially. In the first unsuccessful encounter, no formal proposal was presented. In the second en counter but first agreement, the formal proposal reiterated the verbal discussion, outlined two alternatives, and analyzed costs and benefits. In the second agreement, cost for the requested service was listed. And in the last any downside considerations were raised verbally, but the formal proposal presented only the best alternative for consideration. More written materials showing the same point in several ways (e.g. charts) were presented.

7. The decision requested on the proposal changed from "choose one" to "Does this need to be changed to reflect your needs?"

"Serving Corporate Educational Needs Through Partnership Models: A Case Study for Practical Use"

— Linda Gruber

Interaction between the corporate and educational worlds is a hybrid situation when specific needs are shared and met by both parties in the area of adult language training. I am able to use the label "hybrid" in this way: to imply that the program I am about to describe contained heterogeneous concerns on the part of both the corporation/employer in this situation, DeKalb-Pfizer Genetics (DPG), and its educational resource/employee, Northern Illinois University (NIU). In interviews with representatives from both the corporation and the University, certain features evolve as ones that are central to the idea of a partnership between corporate and educational realms, and just as importantly, these features help fulfill the requirements of a successful adult language training program: are contracts necessary, who and what makes good negotiations; assessing needs; designing a workable program; measuring success; and lastly, benefits received.

Background

During 1986, DPG, a developer of hybrid seed, invited a group of foreign colleagues for an on-site technical exchange, which lasted for approximately six months. DPG wanted to have the visitors maximize the technical and linguistic offerings of such a stay, so the corporation supplied the technical data; however, they knew that their visitors might be better served if the corporation sought out language training from an educational source.

What emerged from the good rapport which existed between the corporation and the University was an agreement to have the University structure and provide a language training program for the foreign visitors. I participated as an instructor in this program.

Are Contracts Necessary?

In this particular case, a verbal agreement emerged rather than a formal written contract. "The reason for the absence of a contract," explains a corporate representative, "is that this was a trial program. By this I mean, our corporation had not offered a language training program like this one before. To my knowledge, the University hadn't either. Secondly, this was a crash program; these foreign visitors were not spending the entire year here and during the time they were here, we wanted them to benefit from an exchange of technological information. These people were hungry for a chance to converse in English. We knew that the University had the expertise to carry out such an intensified language program." Due to the already established interaction of the corporation and the University (personnel from both entities had met before at different professional and social gatherings), the director of the international division of DPG knew exactly who to contact at NIU's Office of International Training and Consultation (OITAC). A late night

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phone call was placed to the home of the OITAC director and the NIU staff was mobilized the next day! While the existence of this office is relatively new, its specific function is to provide training programs identical to the one being discussed and so it was helpful to not only have an educational institution to call upon for assistance in the area of language training, but to have an institution with an office attuned to these types of needs.

Would a contract be an item definitely included should the corporation decide to retain the services of the University again? Both sides feel that a contract would offer pluses in such a situation. All of the representatives feel that the trust factor was never an issue in the agreement because of previous good relations between both parties. What a formal contract would clarify would be "the tangible items," states a corporate spokesperson with legal training. He defines these as being the terms, conditions, and compensations involved in the services being provided by both parties. Not that these were neglected in the informal agreement; one of the managers states that "we were never desirous of taking services from NIU that we were not willing to pay for. Our intent was to reimburse NIU for all of its costs; these included time and materials." The University project director concurs with this statement and adds, "what we both felt and abided by is that neither side's resources should be drained." Another high-ranking DPG official explains, "the incredible fact is the swift response we received from NIU. I agree that a simple, concise contract could be mutually beneficial in the future, but I would hope that it would not delay matters."

Who and What Makes Good Negotiations?

Without a contact per se, there was no need for negotiations! Once again, the mutual respect that each side felt for the other superseded the demand for such talks. In addition to respect, both parties are known for their professional accomplishments and therefore, neither would jeopardize public images by delivering less than what was agreed upon. Says one NIU professor, "we were friends and partners in this." But again, there is always an academic question: when there are negotiations, what constitutes successful ones? The corporate spokespersons as well as those from the University echo each other: awareness of the needs involved and sensitivity to the parties participating are essential. It is interesting to note that there is somewhat of a juxtaposition of answers offered by each side: the University speaker stresses that a "good negotiator is one who is sensitive to the needs of business, someone who is willing and able to provide a service that matches the requirements of business." Conversely, the corporate speaker articulates that a "good negotiator is a person who has an understanding of the specific services a university can provide. He must be aware of what the program entails and be sensitive to all parties who are a part of the program." He also adds that if a person is to be an effective negotiator, "he must consider most of all the needs of the beneficiaries."

It is worth noting that in the case being referred to herein, an unofficial negotiator/translator came to the fore. He was especially helpful in that he was of the same nationality as the visitors and he greatly aided in their "cultural assimilation" in our country. In addition to language skills, this NIU instructor, being a doctoral candidate in Teaching English to Speakers of Other Languages (TESOL), possessed special expertise in evaluating the specific linguistic needs of the visitors. Whatever modest requests the foreign agronomists might have, and usually these were mentioned hesitantly, this NIU instructor conveyed them to the program director, who in turn informed DPG. This gentleman quickly became an important figure in our program for his translation abilities, his ease with our visitors/students, his ten-year history of teaching and researching TESOL, and the obvious admiration our visitors had for him. While he did not conduct negotiations in a formal sense, he certainly proved himself to be an efficient intermediary and any similar program would greatly benefit from having such a person on staff in a language training program. He acknowledges the components in "ideal" negotiations: "there ought to be some way to set out a few guidelines as to hours of teaching and learning, tutorial activities, material preparation, course designing, etc. From the perspective of the corporation, it probably would look more for results, which would have to be realistic but tangible." As far as his own input, he credits it thus: "my opinion did play some role in the decision of the two-period course design, which was probably due to the combined strength of my work with TESOL and my knowledge of teaching English to this nationality. I do not know how far my native language helped the whole process." An unassuming remark and one worthy of contemplation . . .

Assessing Needs

When did it become apparent that the visitors wanted to maximize their linguistic experience in America, I asked one corporate executive. "Immediately," he answered. And from that point, it was the decision of the University to ascertain exactly how this need could be met. While all three of the visitors were experts in their field of technical knowledge, they were at differing levels linguistically. They had what is known as "varying competencies" and while these did not inhibit communication or detract from their performance in any way, they did pose an area of concern for the visitors who wanted to do more than just function in their newly claimed society; they wanted to experience this culture fully and knew that this would come with intensified training in language. Says their compatriot, "they never had any hesitation in accepting or wanting the language course." Is there anything more encouraging than self-assessment in such a situation? Probably not, as it helps all students with a realistic inventory of their own abilities, while sparking interest and motivating dedication to what is being taught.

After contact was made to NIU, representatives from both sides talked about the needs that had been established and it was then that the project director, a language professor, was consulted about what specific role the University could play in language training. "I called an initial meeting at the OITAC office," he relates, "so that the staff from NIU, quickly but carefully chosen, could meet with the visitors and have a mutual understanding of what the needs were and how we could meet them." While the staff was sophisticated in terms of its professional background and credentials, it was essential that a rapport be established between teachers and students; this meeting afforded that opportunity. Since all of the teachers had either training or experience in teaching English as a Second Language (or both), it was easy for them to assess the abilities of their perspective students. What remained a constant for both the corporation and the University was the fact that these visitors were here as technical experts and not as language students; their language instruction was to serve as a supplement to already acquired abilities. One of the three visitors had been a former English major and therefore, she was most equipped to add to her language talents. Her two male counterparts also shared her enthusiasm for language improvement. At the time of that initial meeting, reports the project director, it was decided that based on conversations with the new students, "we as staff had to respond to the needs and levels of all three students. After consultations with other linguistic experts on campus, plus my own experience in this field, I decided to use Practical English: Books 1-3, the Oxford Picture Dictionary of American English, the Oxford Picture Dictionary of American English Workbook, and a book for English for Special Purposes published by Regents Publishing Company and part of their English for Careers books." The project director further reflects on the task he saw placed before him: "I perceived certain levels in my mind and I went about, with the help from the staff, in achieving leaps for these students, to get them beyond a survival or functional level (to use a government term, a 0-1 level) to one level higher and then to have a maintenance thrust to the overall program. We tried hard to give them what they needed in their everyday work and life -- listening and speaking skills, not reading and writing." The students' instructor and fellow countryman agrees: "the students came with strong skills in reading and writing; they had theoretical backgrounds in language; what they needed was the chance and the confidence to converse."

Some of the instructors, at the time the program began, questioned not giving the students a written exam to assess their abilities. The director chose not to take this suggestion because "their newly improved listening and speaking skills were the best indicators. These skills are not well tested in a written exam. Time was a problem; had the students more time to spend on this aspect of their visit, then perhaps a pre- and post-test would have been in order." States one of the instructors, "our first goal was to assist the students in being comfortable in their new environs, to aid them in responding as people, not just technicians."

Designing a Workable Program

Exactly what does this mean? Workable for whom? These were also questions brought up earlier on in the formation of a language training course. Following a needs assessment, it was decided that the course should have two thrusts: one which provided an intensified training of six hours per day, five days a week and another which was termed maintenance, or in linguistic terms, a "period of consolidation" during which the students would meet with the instructor two and a half hours per evening, three evenings per week. During this latter phase, the course format took a more informal turn and conversations covering a broad spectrum of topics (e.g., the moral codes of both societies, women in the workplace, family relations, housing, and raising children) dominated the discussions. These were lively and engaged all participants because of the interest level, but more importantly, because of the apparent ease and comfort with which the students now spoke. Had not this first phase, the intensive one, been given, the students might not have reached the second plateau as easily and quickly; this is the consensus of the staff both at the time of instruction and even now when they look back retrospectively.

The students had a rigorous schedule: six hours of language instruction per day plus an afternoon devoted to their professional responsibilities. What was attempted was a program that allowed for both, one that could allow the students some flexibility so that they could learn and at the same time perform their duties at DPG. The students were eager learners and so they maximized each available moment of their instruction time. One instructor reflects on conversations with the students during the intensive, three-month period: "I was amazed by not only the energy of these people, but their determination in becoming assimilated into a new culture. Many nights they would read, study and discuss until the early morning hours only to face a demanding schedule the next day, one that was physically and mentally taxing." The fact that the students had their language lessons at their apartment eased the burden of their having to travel while also placing the learning situation in a certain context -- a real life setting! There was no stiff formality in a classroom setting, but rather, an exchange of ideas, vocabularies, and what they seemed to most enjoy, the use of idioms. Did this format work? It was obvious to all who participated that it did and the indication of this was the continued interest of the students plus their ability to function at their jobs. The fact that the major portion of the program took place over the summer months facilitated the schedules of the University personnel; however, with university teaching schedules being flexible, just about any time designed into the program would not have posed a serious problem.

In order to most efficiently utilize the students' and the instructors' time spent together, cultural spin-offs arising from the daily lessons/discussions were saved for and highlighted on the weekends. Taking concepts learned in the week's lessons, certain events were planned for students (e.g., ball games, picnics, bike rides, parades, garage sales, and so forth). The one female student learned quickly by attending a Saturday garage sale that it is a term not to be taken literally, i.e., the sale of a garage! The two gentlemen students so liked the idea of garage sales that they became frequenters of them and returned to their native land with a typewriter in mint condition. The cultural events soon took a different shape with one NIU Instructor taking the threesome grocery shopping locally, to another teacher exposing the group to a suburban mall, to a third language specialist driving the students to Chicago for a day-long, guided tour of Chicago. In between all this, there were many informal get-togethers at the homes of the local residents, both University and corporate personnel. At the point of mid-term, the project director hosted a party for all the participants and this was a most popular event in the minds of the students for it allowed them a look at a very special unit: the American family.

My daughter still corresponds with one of the male students and she often studies the pen and ink drawings that he did for her. Other family members of the faculty involved have photos to remind them of our student-friends. To this day when some of us who served as faculty get together socially, we reminisce about funny incidents relative to our summer teaching days. I can remember quite vividly the response I received one day when I asked the students what they had done that day at work: "we killed the volunteers." Having done a good deal of volunteer work in my life, I was puzzled and appalled only to find that I was the one who needed an interpretation of that remark! My life being spared, I can look back at this project and conclude, from all sources surveyed, that this was a workable program in terms of logistics and sentiments too.

Measuring Success

If there is one thing that all parties feel strongly about, it is the overall success of the program. How is this measured without a formal instrument? One of the corporate executives expressed it this way: "I saw and heard the success of the program. I took the technicians to other corporate locations, to other universities and I heard them converse, heard them question." An instructor concurs: "the level of conversational topics went up considerably, especially during the three-month maintenance period; we moved on to a much more abstract plane of thinking and talking." The professor who headed the program had his own special way of evaluating success: "as I talked with the students, which I did daily because I was also an instructor in the program, I made mental notes to myself about their progress. Every three to six weeks, I would review those notes, by then written down, to see if the students had moved up the scale. Any type of evaluative technique verifies the goal of a program and what I was shown by the foreign students is that they indeed were successful in what we had originally outlined for them."

Those on the staff knew what to look for based on their professional experience and therefore, their comments are not that original in scope. It is when we look to the reactions of the corporate partner in this that we hear about the ramifications of success in a program such as this one: "the corporation was most satisfied as far as the competency of and service provided by the NIU staff. This was definitely carried over to the students; they are most grateful for they never realized that they would receive a double benefit -- language instruction and increased technical expertise." Another spokesman offers: "the program was a success. How do I know? I know that the students benefited and this encourages us to offer this type of instruction again. Yes, we would join up with the University again in this type of situation." I remember with great delight running into other personnel from the corporation, those who were involved in international relations, but ones not directly active in this project. They were impressed by the success of the students both linguistically and culturally; they too assured us that the students were not only improving, they were also happy, relaxed and self-confident in social situations.

Benefits Received

Rather than allowing this section to become emotion-laden, I will put that very strong benefit aside and acknowledge the fact that the emotional rewards in a working relationship such as this one, in terms of interacting with the students and satisfying our employer, are the working premises in a case such as ours. Because we all need to plan in realistic terms, it is important to delineate some concrete items in retrospectively looking at our project. The benefits center around two focal points and both are shared equally by the corporate and educational worlds: the workload, which to quote a corporate official, "is balanced between the two entities"; and the personal touch, which cannot be underestimated in such an endeavor. In dividing the responsibilities of both parties, the burden is not felt by anyone and the benefits are enjoyed by all. The second feature that is brought out by both DPG and NIU is valued by both as well. I am referring to the individual approach, the personal touch, that is possible in using a university staff as opposed to contracting the services of a private language consulting firm. The corporate personnel felt strongly about this: "the individual shines through (both student and teacher) in a university team. There is variety in that your staff represented different dialects, gestures, tones, and personalities — there was an opportunity for the technicians to visit with you, your families. This would have been missing in a private consultant's approach." A further comment from another corporate source says that "you considered the profile of the student. One of the students told me that her first two months here, between the classes and the cultural events, was the equivalent of an entire year of English in her country. And there she would not have had the advantage of a real cultural exchange. A private language firm could not have provided that." The University's project director admits his prejudice in this area, but he feels from past experiences and observations of private language firms, that a university both receives and gives special benefits: "our attempts at making these people feel comfortable and welcomed were what aided their progress and what produced good public relations with these people and their country. The rewards were shared by all." For the staff's reactions to what benefits can be achieved, I must turn to my colleague who is also a countryman to the students: "quality programs have to come from accumulated experience." Indeed, in our case, experience produced quality as well as memories and lessons. The idea of the importance of a contract, good negotiations, needs assessment, program design, measuring success and benefits received must always be considered on the road from experience to quality in adult language training programs.

Editor's Note: Because of the sensitiviity of international corporate relations, the corporation referred to above has requested that specific names and details be omitted from my case study.

DEVELOPING OUR PRECIOUS RESOURCES
NEW JERSEY'S CERTIFIED PUBLIC MANAGER PROGRAM
ALMA M. JOSEPH

Few theorists or practitioners would dispute that "management is the key occupational group in an industrial society" and that effective managers are made through training and development. (Campbell, Dunnette, Lawler and Weick, 1970, p.4) The validity of the above is not altered when we apply it to the public sector manager instead of his counterpart in the private sector even though, the treatment (with respect to training and development) of these two groups of managers often varies significantly.

The purpose of this paper is to discuss an innovative approach to the training and development of managers in the public sector. To set the stage, this paper will take a brief look at some of the similarities and differences between public and private sector managers, look at managerial jobs and discuss what managers need to know. Finally, the paper will describe how the State of New Jersey is meeting the challenge of developing effective managers.

Public vs. Private Sector Managers - Differences and Similarities

Although there are some major differences between private and public sector managers which impact on various activities including the type of training and development needed by those functioning in specific organizations, there is some cross-over as Drucker points out. Businesses often have service institutions which are closer in function to public sector operations than to the operations of the business, for example, the research division of a manufacturing firm. (Drucker, 1974, p. 132) In addition, in both the private and public sector managers must deal with the issues of staffing, financing, and otherwise conducting organizational business so as to promote maximum benefit. (Gordon, 1982, p. 20)

Since the focus of this paper is on the public sector manager, let us turn our attention now to some of the factors which differentiate the managers in the public and private sectors. Many public organizations hold a monopoly on providing certain services and are able therefore to survive regardless of the quality of services provided. To compound the issue, since the clientele of many public agencies are not viewed as the source of the agencies' financial support, they are often treated with disdain. For example, the welfare client is viewed as one who has not paid taxes from which the salaries of the personnel in the welfare office or the check she receives emanate. Thus, the concepts of "service with a smile" or "the customer is always right" are not applied.

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Other elements which differentiate these sectors are the lack of economic measures of performance in the public sector, diffused responsibility for decision making, and the imposition of goals by other organizations. (Gordon, 1982, p.22) The most often cited difference between the private and public sector is the public sector's lack of the profit motive. Government does not have the making of money as one of its raison d'etre. Although billions of dollars are managed, there is often no desire or need to do more than break-even or balance the books.

Without the emphasis on the profit motive, the public sector is unable to provide a measure of effectiveness which is acceptable to the citizens particularly businessmen who blame "bureaucracy" for this shortcoming.

Another area where differences are significant is the locus of power. Most public organizations suffer from diffused responsibility as evidenced by the separation of powers among the branches of government. (Gordon, 1982, p.22) In fact, public organizations entrust decision responsibility to a variety of external groups such as citizens, courts and various boards or commissions. (Gordon, 1982, p.22) The final area of difference to be discussed here is the imposition of goals on public sector organizational units by other organizations. The state legislature which represents the citizenry sets goals for the various operating agencies in the state. Budget allocations which are determined in the legislative forum guide the programs which are established and maintained thus, influencing the environment in which the public manager must operate.

According to Gordon (1982), the two sectors are becoming increasingly interdependent. Legislation regarding hazardous waste for example, impacts on private sector chemical corporations as well as on governmental units dealing with environmental protection. In addition, "there is a tendency for local governments to enter into contractual arrangements with private firms for delivery of services, such as garbage collection and fire protection." (Gordon, 1982, p.25)

With this background in mind, let us take a brief look at what managers do.

The Job of Manager

The task of describing a job and then determining what behaviors comprise effective performance is a difficult one for most jobs and particularly difficult for the job of manager. In spite of the difficulty in describing managerial work, many studies using a variety of techniques have attempted to do so.

Notable among these are the works of Campbell, Dunnette, Lawler and Weick (1970), Mintzberg (1973) and Stewart (1982). According to Campbell, Dunnette, Lawler and Weick (1970, p.71) there are three reasons which make the description of managerial work difficult: 1) the jobs are subject to time-determined changes; 2) there are person-determined changes; and 3) the jobs are subject to situation-determined changes. That is, managers perform certain tasks at various times during the year, for example, budget preparation and contract negotiation which are not performed at other times of the year. In addition, managers are given great latitude in how to accomplish the goals of the organization and they must react to their environment and thus alter their behaviors based upon their level in the organization or the organization itself.

Mintzberg divided managerial activities into three groups: a) those that are concerned primarily with interpersonal relationships; b) those that are concerned primarily with the transfer of information; and c) those that primarily deal with decision-making. (Mintzberg, 1973, p.56) These three groups of activities were then divided into ten roles which are not separable. It is not possible to have several managers working as a team with each manager specializing in a specific role. It is also important to acknowledge that managers do not have equal strengths in all of the areas. The ten roles of a manager which included figurehead, leader, resource allocator, and negotiator, are essential components of the six basic roles of a manager which were delineated by Mintzberg: 1) The prime purpose of the manager is to ensure that his organization serves its basic purpose - the efficient production of specific goods or services;
2) The manager must design and maintain the stability of his organization's operations; 3) The manager must take charge of his organization's strategy - making system, and therein adapt his organization in a controlled way to its changing environment;
4) The manager must ensure that his organization serves the ends of those persons who control it thereby acting as the focus for organizational values; 5) The manager must serve as the key informational link between his organization and its environment; and 6) The manager is responsible for the operation of his organization's status system. (Mintzberg, 1973, p.95-96)

Based on previous works, Stewart (1982) developed a model for understanding managerial jobs. The model can be viewed as an inner core of demands, an outer boundary of constraints and an in-between area of choices. According to Stewart, the job of a manager can be defined by: a) demands - what any manager in the job must do; b) constraints - factors which limit what the manager can do; these factors may be internal or external to the organization; and c) choices - opportunities which the manager has to do things differently. (Stewart, 1982, p.8)

The role of the manager is best defined as the efficient and effective use of resources to achieve goals and objectives in an organizational context. Thus, regardless of the accuracy of the analyses done on managerial jobs, that is, which study best defines the work of a manager, it is more important to look at the competencies necessary for effective management.

Managerial Competencies

Managerial competencies are those characteristics presumed significant in the performance of a manager's duties. In 1955 Robert Katz stated that managerial ability should be described in terms of three observable skills - human skill, conceptual skill and technical skill. (Katz, 1955) Human skill was defined as the manager's ability to build cooperative effort within the team he leads. Conceptual skill was defined as the ability to see the enterprise as a whole and recognize the relationships of one part of the enterprise to others as well as the relationship of the enterprise to the external environment. Technical skill was defined as an understanding of, and proficiency in, a specific kind of activity, particularly , one involving methods, processes, procedures, or techniques. Twenty years later, in a retrospective on his original article, Katz altered his perspective on the need for these skills in managerial work. (Katz, 1974) Human skill was divided into leadership ability and skill in intergroup relationship. With respect to conceptual skill, Katz extended his definition to include thinking in terms of relative emphases and priorities among conflicting objectives and criteria. In addition, Katz changed his view on the need for technical skill as being situation specific that is, unnecessary for large organizations in which managers have access to an extensive staff of technical people yet necessary for smaller organizations in which technical staff are not as readily available (Katz, 1974, p.101)

"Effective managerial job behavior [is] any set of managerial actions believed to be optimal for identifying, assimilating, and utilizing both internal and external resources toward sustaining, over the long term, the functioning of the organizational unit for which the manager has some degree of responsibility." (Campbell, Dunnette, Lawler and Weick, 1970, p.127) Basically, this definition not unlike others which have been offered, summarizes the beliefs regarding the competencies managers need for the various roles they must play.

The findings of the studies discussed here and others not included in this paper on the roles and competencies of managers do not contradict or override the traditional view of managers as planners, organizers, controllers, they merely set the stage in which these activities take place. Regardless of the label placed on the activities however, as Fulker states, "public managers in the 1980's and 90's face unprecedented challenges as their managerial roles, responsibilities and leadership behavior are forced to cope with the dramatic and turbulent changes ahead." (Fulker, 1982,p.26)

Even this brief look at what makes an effective manager leads us to the realization that managers operate in a constantly changing environment and as such they must become lifelong learners in order to learn, unlearn, re-evaluate, and revise their attitudes, beliefs, skills and perspectives.

Developing Effective Managers in New Jersey

Traditionally, individuals climbed the corporate ladder or rose through the ranks in order to reach managerial levels. Thus, those who were technically competent were rewarded by being moved from their specific area of competence and being given the responsibility for the work of others. More often than not, this change of assignment occurred without any formal preparation or assistance in making this important transition. This phenomenon probably had more impact in the public sector where fitness for promotion is determined primarily by paper and pencil examinations.

During the fiscal year 1981-1982 the State of New Jersey's operating departments spent $175,379 on supervisory/management training. This represented approximately seven percent of the money reportedly spent on all training. (In house training programs, that is, training conducted by departmental staff were not reported.) (Nanry, 1984, p.9) The variation in expenditures was tremendous. Some departments reported spending nothing on supervisory/management training while one department reported spending $32,186. (Nanry, 1984,p.9-10)

The decision to train or not to train was left entirely to each operating department as was the decision regarding tuition reimbursement. Thus, it is evident that a need existed for some direction, and a uniform, consistent policy on training and education.

Soon after taking office in January, 1982, Governor Thomas Kean expressed an interest in and commitment to improving the management of State government. He targeted the training and development of managers as the means by which managerial effectiveness could be improved. Thus, under his leadership a search for a program which might meet the needs of New Jersey State supervisors and managers was underway. The search led to Georgia where a comprehensive training and development program for managers had been initiated in 1976 and a consortium known as the National Certified Public Manager Program had formed. The Georgia model contained many of the elements that New Jersey was seeking and therefore, it was modified to meet the specific requirements of New Jersey and presented to the Governor.

The Governor embraced the concept and announced the initiation of the Program in his January 11, 1983 State of the State Message and by Executive Order #28 on January 13, 1983, formally established the Certified Public Manager Program as the basic training program for all State supervisors and managers.

With this, New Jersey joined six other states involved in the structured improvement of government managers. The National Certified Public Manager Program Consortium was formed by associated states who agreed to bond themselves together to express standards and procedures in awarding the Certified Public Manager Designation. (National Certified Public Manager Consortium, 1982, p.1) The member states believe that "the quality and efficiency of management in state and local government within the United States have [a] major impact on the lives of individual citizens and the orderly functioning of society. Systematic training programs [therefore] are essential in order to maintain and improve the effectiveness and professionalism of government managers." (National Certified Public Manager Consortium, 1982, p.1)

"Service is what government is all about." (Governor Kean, 1985, p.46) The Certified Public Manager Program is one of the avenues used by the administration to ensure that the services received by the citizenry are effective and efficient. In his State of the State message, Governor Kean discussed the various resources which the State must preserve. However, it is noteworthy to mention that he said "ultimately, the resource which the state must take the greatest care to manage properly is its people." (Governor Kean, 1985, p.46) Not surprisingly, this agrees with the findings of Naisbitt who determined that the top companies in this country were linked by something other than product or service. All of the companies chosen demonstrated a commitment to their most critical resource - the employee. This commitment indicates a realization that in an information society, human resources are the competitive edge. (Naisbitt, 1985)

The New Jersey Certified Public Manager Program

The New Jersey Certified Public Manager Program is a specialized training and development program for the supervisors and managers of New Jersey government. The purpose of the Program is to provide practical "hands on" training for those supervisors and managers whose actions impact upon the delivery of services and the smooth operation of all levels of New Jersey government.

The Program is administered and conducted by the Department of Personnel in collaboration with Rutgers, the State University. Although many of the operating agencies sent employees to courses offered by Rutgers University and the other institutions of higher education in New Jersey for specific courses, the initiation of the Program was the first truly collaborative effort between government and higher education in New Jersey. This partnership has resulted in several other collaborative endeavors which have benefited both organizations.)

In addition to this partnership between the university and government, the Program is governed by a Policy Board and a Curriculum and Operations Committee which fostered a unique relationship among the academic community, private industry and government. The Policy Board is composed of commissioners from various departments, representatives from the academic community and individuals from private industry and is appointed by the Commissioner of Personnel, the chief administrator of the Program, to give advice on Program policy. (Issues such as fast-tracking and co-payment by participants are discussed by this Board and recommendations are made to the Commissioner.) The Curriculum and Operations Committee is appointed by the Commissioner to suggest and review changes or additions to the curriculum or the way the Program conducts business. Likewise, this committee is composed of individuals from government, academia, and the private sector.

The content and training methodology used in the Program emphasize pragmatic management tools and skills although the theoretical framework within which these tools and skills are utilized is presented. The Program is highly interactive rather than dogmatic in its approach. Although many of the participants lack formal training in management theory, it is recognized that the vast array of experiences which they bring to the classroom setting is an invaluable commodity. Figure 1 is a graphic illustration of the Program. Levels I-III are designed specifically for supervisors while Levels IV-VI are designed specifically for managers. However, a decision was made at the inception of the Program to require all managers to participate in all levels. This would give all managers an opportunity to become cognizant of the ideas and techniques their subordinates were experiencing in the first three levels and also enable them regardless of prior education and experience to learn and discuss management theory and its applicability to their specific problems using a common vocabulary and frame of reference.

The Program was not designed as an academic experience, rather it was to be professional development culminating in a professional credential. The emphasis and intent have not been changed, however, the Program has been evaluated by the American Council on Education's Program on Non-collegiate Sponsored Instruction and a recommendation was made to grant academic credit to those who satisfactorily complete the various phases of the Program.

The Program does not pretend to be the final phase in the development of managers because it is realized that in the ever-changing environment of the public sector, lifelong learning is a necessity. Although no major studies on the effectiveness of this Program have been completed to date, several projects which have been completed indicate that the supervisors and managers are using the information and skills taught in the Program to improve the efficiency and effectiveness of government. Regardless of the results of future studies, the Program's impact on the relationship between government and higher education in New Jersey is an important one. This relationship is and will continue to foster an atmosphere where continuing education is expected and supported. The Program has started a movement toward Naisbitt's top companies. Developing our managers is only the first step in ensuring that all of our precious resources are developed and that New Jersey government acquires and maintains a competitive edge.

Doing more with less has become a necessary mandate in government operations. Joint programs between government and higher education can enable us to accomplish this goal.

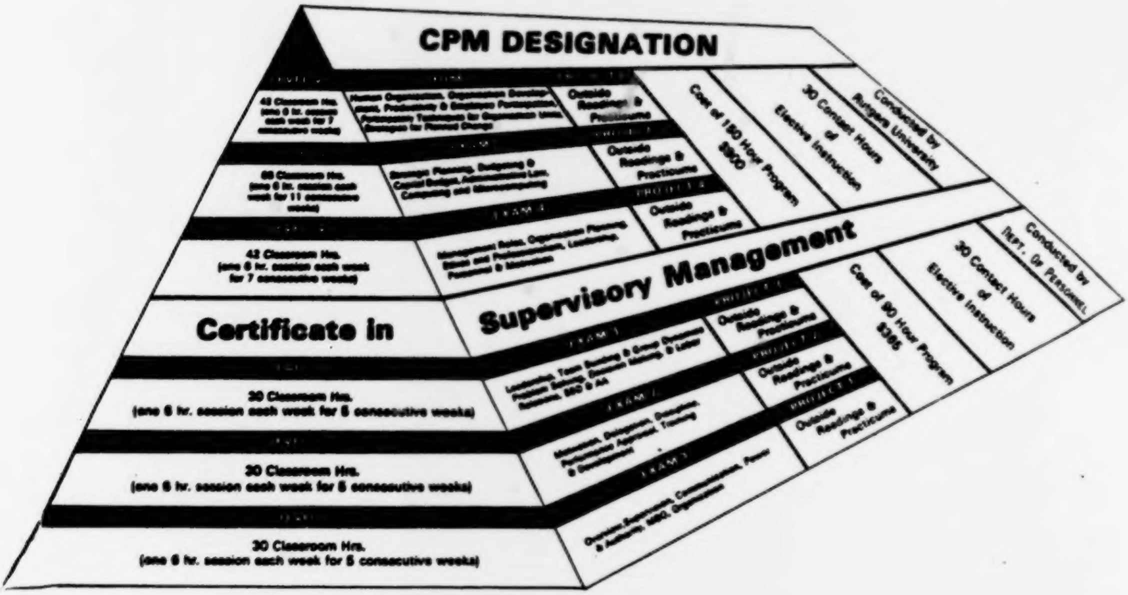
CPM DESIGNATION
42 Classroom Hrs.
Outside Readings & Practicums
Outside Readings & Practicums
Outside Readings & Practicums
Cost of 150 Hour Program $800
30 Contact Hours of Elective Instruction
Conducted by Rutgers University
42 Classroom Hrs. (one 6 hr. session each week for 7 consecutive weeks)
Certificate in
Supervisory Management
Outside Readings & Practicums
Outside Readings & Practicums
Outside Readings & Practicums
Cost of 90 Hour Program $385
30 Contact Hours of Elective Instruction
Conducted by Dept. of Personnel
30 Classroom Hrs. (one 6 hr. session each week for 5 consecutive weeks)
30 Classroom Hrs. (one 6 hr. session each week for 5 consecutive weeks)
30 Classroom Hrs. (one 6 hr. session each week for 5 consecutive weeks)

Figure 1

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THE JOINT PARTNERSHIP ROLE OF CONTINUING EDUCATION AND LABOR-MANAGEMENT IN CORPORATE AMERICA

Robert B. Leiter

If we are going to remain competitive in the global marketplace we can no longer assume a posture of business as usual. This has become The University of Alabama's position as it relates to economic development, labor-management cooperative programs, and the future of our nation as a leader in world productivity.

Traditionally the mission of higher education has been three fold: teaching, research, and service. Although the mission of most institutions has not changed as far as these three categories are concerned, the area of service has taken on new meaning in many institutions. Service has generally been construed to mean public service as it relates to serving the needs of the community at large. In the last few years its meaning has more and more come to encompass economic development as a major part in many institutional missions. Economic development takes on many and varied roles. Those roles differ from institution to institution just as the role of educating students varies from institution to institution.

The University of Alabama is one of those organizations that has placed a strong emphasis on economic development in the last four years. During that period the University has taken an active role in various labor-management partnership models with private industry and with the federal government.

This paper will address some of the major cooperative efforts undertaken in the last few years by The University of Alabama, fortune 500 and other corporations, labor unions, and the federal government. Included will be discussion of:

- Joint Cooperative Partnership Ventures
- The Gadsden, Alabama Story
- State of Alabama Cooperative Labor-Management Efforts
- Southeastern Labor-Management Programs
- The Future

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Joint Cooperative Partnership Ventures

In 1978 General Motors Corporation opened its Rochester Products Division plant in Tuscaloosa, Alabama. The plant employed workers who assembled replacement carburetors, emission control components and carburetor service kits. After laying off nearly 1/3 of its employees in 1980 the plant still needed to cut costs by $2 million a year to stay competitive.

In 1982 General Motors reluctantly announced its plans to phase-out its Tuscaloosa, Alabama Rochester Products Division, leaving nearly 200 employees out of work. A group of University of Alabama officials working with the General Motors management and union officials put together a plan that saved the business, keeping all workers on the job and creating a better working environment and a more productive facility.

The University of Alabama-General Motors-United Auto Workers program, known as the UA-GM-UAW Agreement, was the first of five joint programs the University has developed with industries in the state of Alabama. Shortly after the General Motors success story a similar venture was entered into with Stockham Valve Company in Birmingham, Alabama. This old line family business was facing severe problems in production and union negotiations, and was experiencing shrinking profits. Joint efforts between The University of Alabama, plant management, and union officials have enabled the initiation of significant changes and movement toward more productivity and profitability while saving jobs.

In another joint venture the University leadership was instrumental in developing a new industry in Tuscaloosa. Tuscaloosa Steel Company is a new steelrolling mill manufacturing plant, which opened in 1986. When it is fully operational it will employee more than 150 people. Modern technology and cooperation between the University, city, and developers are ingredients of this successful story.

The Alabama Productivity Center was developed in 1986 as a partnership between The University of Alabama and the Alabama Power Company. This joint effort is designed to assist companies in improving their productivity in order to better their competitive positions in the marketplace. There are currently a number of companies taking advantage of this joint cooperative venture.

National Victor Company of Japan (JVC) is the newest addition to the University's cooperative program portfolio. This Japanese-based major magnetics information technologies firm has just opened its American national headquarters in the United States in Tuscaloosa. The University, working with city and state officials, was successful against other bidders in bringing this industry to Tuscaloosa, Alabama. This industry which currently operates two manufacturing divisions has developed 250 new jobs for the area with a promise of as many as 400 when full production is reached in two years.

To help orient Japanese families transferred to the U.S., the University has opened a Japanese "Saturday" to teach english language and other skills to school-age Japanese children. The University, in conjunction with the Greater Tuscaloosa County Chamber of Commerce, expanded local awareness of Japanese culture through a week-long Japanese Sukara Festival.

The Gadsden, Alabama Story

Gadsden, Alabama is an industrial city of approximately 50,000 people in northwest Alabama. During the last decade it has farced a decline in its population and industry. A number of activities have come together in the last two years which have the community thinking more positively about its future.

The University of Alabama and the College of Continuing Studies have had a center in Gadsden since the early 1940's. Two years ago several things began to happen as the city faced severe economic problems at the same time that the University was moving toward a stronger commitment in the area of economic development.

The University, working with the city of Gadsden and the state of Alabama community colleges in Gadsden, put together a successful grant proposal for $1.3 million for an advanced manufacturing technology center through The Tennessee Valley Authority (TVA). The Center, now called the Tom Bevill Center for Advanced Manufacturing Technology, is governed and financed by a joint board of 9 officers, three from each The University of Alabama, the city of Gadsden, and Gadsden Community College. The Center is currently in its first full year of operation and features a training facility with the latest in computer and robotics technology. Local and regional industries are able to take advantage of opportunities at the Center to train employees, do research, and be exposed to the latest methods in manufacturing technology.

Another important event in Gadsden evolved around LTV's Gulf States Steel plant which was forced to be sold because of financial difficulties in 1986. Employing 1900 people, the second largest employer in Gadsden, the plant's failure/closing created much concern in a community already plaqued with high unemployment and shrinking resources. After an unsuccessful attempt at an employee buy-out The Brenlin Group, an investment firm out of Akron, Ohio, purchased Gulf States Steel Corporation.

Working together, labor and management were able to come up with a successful labor-management agreement. The plant is now running strong and employees are seeing profit sharing checks each quarter because of the labor-management cooperation and realization of the need for positive productivity. The University is currently conducting a number of in-plant educational training programs with Gulf States to increase further the quality and productivity.

At the same time the Gulf States Steel story was unfolding, The University of Alabama's, College of Continuing Studies was heavily involved with the U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, and the Federal Mediation and Conciliation Service to develop an area labor-management committee (ALMC) in Gadsden/Etowah County. At a two day labor-management symposium funded by the U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, and conducted jointly by The University of Alabama, the Department of Labor, and the Federal Mediation and Conciliation Service a model was worked through with top government, labor, and management officials from Gadsden/Etowah County. The model is outlined below:

Session I: Expectations - What do you hope to achieve through an area labor-management committee?

Small Groups

Labor

Management

Government/Education

Large Group

Reports from small groups

Session II: Impediments to Achieving Expectations of ALMC

Small Groups

Labor

Management

Government/Education

Large Group

Reports from small groups

Session III: Ways to Overcome Impediments

Small Groups

Labor

Management

Government/Education

Large Group

Reports from small groups

Session IV: Formulating An Action Plan

Small Groups

Labor

Management

Government/Education

Large Group

Reports from small groups

Session V: Wrap-up: Consolidated Action Plan

At the conclusion of the two day symposium all parties had begun to realize that their goals were similar and that by working together these goals were indeed achievable. From this symposium Gadsden/Etowah County has now developed a successful area labor-management committee which in striving to achieve common results for the good of the entire community.

State of Alabama Cooperative Labor-Management Efforts

In June 1987 the third annual Governor's Conference on Labor-Management Cooperation will take place at Guntersville, Alabama. Three years ago the State Commission of Labor together with The University of Alabama's, College of Continuing Studies realized that if we were to be successful a forum must be provided. A forum whereby labor and management officials from throughout the state could meet in a non-threatening environment to share concerns to allow Alabama to have any opportunity to keep the industrial base it currently has as well as experiencing growth through economic development. By combining work and pleasure in a non-threatening environment this annual conference has grown to be recognized by the U.S. Department of Labor as an exemplary cooperative labor-management effort in the country.

Based on the success of the first Governor's Conference in 1985 the board incorporated this allowing them the flexibilities that are unique to incorporated entities such as the use and carryover of funds and limited liability. With the support of the Governor and the State Labor Commission this annual conference has grown yearly. The enrollment in June of this year is expected to exceed 200.

Southeastern Cooperative Labor-Management Programs

Based on an ongoing relationship from our local and state industrial efforts and our successful labor-management cooperative efforts, The University of Alabama's, College of Continuing Studies teamed up with the U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, and the Federal Mediation and Conciliation Service to develop the First Annual Southeastern Labor-

Management Conference. This conference took place in Tampa, Florida, at the Ashley Plaza, February 23-26, 1986.

The First Annual Southeastern Labor-Management Conference was truly a cooperative effort between education, government, labor, and management. The planning of the event was a year long effort between some of the most respected leaders in education, labor, management, and government in the southeast. The program featured balanced presentations with both labor and management sharing the same platform. The planning committee made up of 18 individuals representing a cross section of all interested parties was a very intense group. The planning committee was sincere and serious as it was realized that people's jobs, industries, and livelihoods were at stake.

Over 150 participants turned out for the Tampa program which was judged as a total success and a positive step toward improved future labor-management relations in the Southeast. The format of the conference featured nationally known keynote speakers from labor, management, education, and government as well as panel discussions and small group workshops. The evaluations of the conference were very good and shared comments such as:

> "I feel this is a positive move in the right direction."
>
> "One of the best conference I've every attended."
>
> "The partnership with education, government, labor, and management was eye opening."
>
> "I would come back next year."

Based upon the success of the First Southeastern Labor-Management Conference in Tampa, plans were immediately begun for the second annual conference. The theme for the Second Southeastern Labor-Management Conference is "America Works--Through Cooperative Labor-Management Programs."

The conference slated for May 13-16 at the Hyatt Regency in Louisville, which is the site for the second annual conference, should prove to be an outstanding event. Once again featuring top national labor, management, education, and government leaders from across the U.S., the conference will present frank examples of the successes and the failures of cooperative labor-management programs. The underlying premise of the conference is that through the sharing of ideas cooperative labor-management programs in America will continue to work.

Two unique features of the Second Southeastern Labor-Management Conference warrant special mention. First, the conference is showcasing three fortune 500 companies located in Louisville. Ford Motor Company, Philip Morris USA, and General Electric have agreed to open the doors of their plants in Louisville for field trips and discussions of the effectiveness of their labor-management programs. The second unique plan is that four organizations, LAMCO - Louisville Area Labor-Management Committee, Ford Motor Company, General Electric, and Philip

Morris USA have combined to donate $20,000 to provide a night at the Center for the Living Arts in Louisville. This is the first time that a joint effort between labor and management has come together to this extent to promote a cultural event on a regional basis. The important point here is that we have begun to move away from the usual issues of labor and management and into the broader issues of quality of life.

Our early projections are that conference registrations will more than double attendance at the First Southeaster Labor-Management Conference and that there will be over 300 participants at the Louisville Conference.

Future

These are only a small sampling of cooperative labor-management concepts currently being offered, examined, and tested in our country today. Truly, universities need to take a close look what their roles should be in cultivating labor-management programs and also examine their roles in the economic development of their states or regions.

One major role of Universities is to provide a forum for mutual exchange of ideas attitudes and ideals, and although that role will vary among institutions, it can be a significant role for those where the commitment and leadership exists. There may never be a greater service opportunity which presents itself to us than economic development and labor-management relations. We have an opportunity to show progressive leadership and support in our communities and our nation by promoting cooperation between labor and management. Now is the time for education to make a difference.

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AN INTER-INSTITUTIONAL PARTNERSHIP SERVING A CORPORATE CLIENT

BY

RICHARD J. McCARBERY

> The mission of Lorain County Community College is: to provide, within statutory definitions, easy access to a broad spectrum of learning experiences, tailored to the needs of the College's constituency at the lowest possible cost consistent with quality results; to assume a leadership role in the economic and social development of Lorain County through close innovative involvement with business, industry and public agencies by increasing its ability to provide educational dimensions directly associated with life experiences.

Lorain County Community College is a chartered institution within the Ohio state system of higher education. L.C.C.C. functions in cooperation with the state Board of Regents who coordinate the activities of all state-aided Ohio colleges and universities. Within the Ohio system there are 15 universities, 7 comprehensive community colleges, and 16 two-year technical colleges.

Lorain County Community College is a comprehensive community college providing credit instruction through seven instructional divisions [both university-parallel college transfer programs and career-technical programs], non-credit instruction through the Community Education Division [continuing education] and the new Advanced Technologies Center, as well as a full-range of student services, developmental education and life-long learning opportunities. Through the credit divisions, L.C.C.C. offers several associate degree options and 15 certificate programs that can be completed in one year of full-time study that are designed for career entry.

Lorain County Community College serves Lorain County with a population of approximately 270,000 residents. Within the county there are two cities in excess of 58,000 residents each; several smaller communities; and some rural areas.

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Lorain County has a long history as a manufacturing community. Its smoke-stack industries include three large auto plants [two Ford Motor Company plants and one General Motors plant] and a large steel mill complex (USX). Industry in Lorain County today is a mix of manufacturing and service represented by 357 different companies. The following distribution shows the number of industries by size of workforce:

Over 1000 Employees	6 Industries
500 - 999 "	6 "
100 - 499 "	36 "
50 - 99 "	37 "
10 - 49 "	133 "
Fewer than 10	139 "

The changes occurring nationally in the smoke-stack industries due to overseas competition coupled with the impact of automation clearly has impacted the workforce in Lorain County. The term "rust bowl" is more than a cliche for many unemployed, underemployed or at-risk employees. For many, future employment potential is contingent upon training and/or retraining for the potential job market.

Background

The National Development and Training Center [NDTC] of UAW-Ford announced in 1984 the development of a Pilot Project entitled College and University Options Program [CUOP] to serve the educational and training needs of UAW-Ford employees. In January of 1985, L.C.C.C. responded with a proposal to participate in the CUOP program as a single institution and as a primary partner.

Several Cleveland area colleges were selected as primary partners to serve the UAW-Ford employees at the seven area Ford Motor Company plants in the Cleveland region. At the present time, L.C.C.C. continues to be a member of the Cleveland Area Primary Partner Council along with Cuyahoga Community College and Cleveland State University. Because of the geographical location of the Ford plants, L.C.C.C. has become the lead institution in serving the associate degree level needs of the two plants located in Lorain County [Lorain Assembly in the city of Lorain and Ohio Truck located in Avon Lake]. Cuyahoga Community College has a parallel responsibility to serve the plants in Cuyahoga County.

The NDTC expectations for a primary partner required the institution to provide: [1] a full range of education programs; [2] ease of access to the above programs for UAW employees; [3] flexible scheduling of courses and programs; [4] on-site offerings; [5] a full range of student services including counseling, educational planning, transfer information and access to library resources; and [6] assessment and crediting of experiential learning. In addition to the above expectations, a primary partner institution had to demonstrate its ability to revise existing programs or create tailored programs [e.g. credit and non-credit, certificate or associate degree programs] to respond to the technological and business need of the Ford Motor Company, its plants and the UAW workforce.

L.C.C.C. has a long history of working with and serving the educational/training needs of business and industry. The College is alert to the changing needs of business and industry and has, and will, respond accordingly.

The ability of the College to provide flexible and innovative programming can be demonstrated by the following example:

- Computer assisted instruction is available for certain remedial education courses and programs.
- A Coordinator of Academic Computing is responsible for developing new uses and expanding current uses of computers as educational tools.
- As a member of a multi-college consortium, L.C.C.C. collaborates on the scheduling and offering of telecourses broadcast by the Cleveland Public Broadcast Station. Over ten [10] telecourses are offered by the College each quarter and the Director of Audiovisual Services is committed to expanding this service.
- The College has demonstrated its ability to take credit courses off-campus to the worksite and has an enlarging cadre of faculty participating in such activities.
- The College owns a mobile classroom that can take advanced technology equipment to the worksite to provide hands on instruction normally available only in on-campus laboratories.
- The College is licensed for a four [4] channel ITFS television system and has recently made application to the U.S. Department of Commerce, National Telecommunication and Information Administration for a construction grant.

Since the Fall of 1985, the Cleveland Area Primary Partner Council institutions have been offering credit and non-credit courses and training programs to the several UAW-Ford plants in the Cleveland region.

The Current Project

During the Fall of 1986, Lorain County Community College was approached by the UAW-Ford Life/Education Advisors [LEA's] in the two Lorain County plants, as well as by training personnel, and the UAW education committees to consider the possibility of providing a baccalaureate degree program at the Lorain Assembly Plant site. Early discussions with the education/training leadership indicated that certain expectations would have to be met: i.e. [1] potential students would have the opportunity to be assessed for experiential learning credit award; [2] transfer of previously earned credit would be evaluated and appropriate credit would be awarded; [3] individual assessment and appropriate remediation would be provided; [4] flexible programs would be offered; [5] a 2+2 articulation would facilitate baccalaureate degree completion.

L.C.C.C.'s history of: [1] offering off-campus education; [2] providing prior learning assessment; [3] providing flexible scheduling; [4] providing innovative and creative course delivery; and [5] ability to develop highly individualized associate degree programs seemed to assure UAW-Ford that the lower division portion of the proposed program could be achieved. L.C.C.C. then began to inquire into the 2+2 articulation phase of the program.

Following several discussions within the Cleveland Area Primary Partner Council, it was decided that L.C.C.C. would approach the University of Toledo's University College. University College's history clearly demonstrates its ability to meet the expectations of UAW-Ford and the Ford Motor Company. As a result, L.C.C.C. has entered into an agreement with the University of Toledo to provide a 2+2 program on-site at Lorain Assembly plant.

The program that is now underway is both non-traditional and inter-disciplinary. The presentation of the 2+2 [Associate Degree to Bachelor's Degree] articulated program involves a wide variety of delivery modes. First of all, individual assessment and an appropriate remediation program has been prescribed by the ASSET Test administered by L.C.C.C. The Associate Degree program provides for the student [UAW hourly or Ford Motor Company salaried employee] to take a Portfolio Development Course early in his/her program. The evaluation of the student's portfolio for lower division credit will be done by L.C.C.C. and evaluation for upper division credit will be done by The University of Toledo.

L.C.C.C. is able to provide the students with several flexible, highly individualized Associate Degree options. The Associate of Arts in General Studies offers the student the opportunity to select courses from three of the College's credit divisions to create an integrated, interdisciplinary area of concentration. The Associate in Technical Studies permits the student to tailor a 45-quarter hour area of concentration from two or more of the College's engineering technologies, business, or other technical programs to create his/her own field of concentration consistent with Bachelor's Degree interests and career goals. The A.T.S. degree option also may be used to facilitate the award of credit for apprenticeship training and other evaluated training programs.

L.C.C.C. has developed policies and procedures for the development of a relatively new degree -- The Associate in Individualized Studies. Following approval by the Ohio Board of Regents, this new degree option will provide students the opportunity to develop an area of concentration of 45-quarter hours [similar to the A.T.S. degree] made up of a combination of general education coursework and technical courses. The goal of the A.T.S. and A.I.S. degrees is to enable adult learners to create college "majors" that meet the individual student's needs - either for transfer in the current 2+2 program or for career development.

Course delivery modes in the current 2+2 articulated program from both L.C.C.C. and The University of Toledo include: [1] on-site courses; [2] prior learning assessment through a variety of assessment methodologies - e.g. portfolio development, standardized and challenge exams, evaluated training programs and apprenticeships, etc.; [3] telecourses; [4] independent studies; and [5] distance learning/CAI.

The completion of L.C.C.C.'s ITFS facility, with 2-way, interactive audio, will further expand the flexibility with which L.C.C.C. can outreach to business and industry, including the on-going current program.

Lorain County Community College looks at this program as a developing model for serving the needs of the full-time employed adult learner. The components of the current project involve not only serving a corporate client through a college-business partnership, but provides for an inter-institutional partnership to serve corporate educational needs.

PARTNERSHIPS: TWO COLLEGES COLLABORATE TO SERVE A CORPORATE EDUCATIONAL NEED AND ENHANCE THE UNIVERSITY'S COMMUNITY RELATIONS

Peter K. Mills and Dennis A. McMillen

Introduction

This paper describes one aspect of efforts by the University of Charleston, beginning in 1985-86, to revitalize its Continuing Education program and improve relations with the community. A needs assessment, conducted by the College Board, introduced the concept of Contract Training. Several successful contract relationships resulted, for both credit and non-credit undergraduate courses. A subsequent call on Blue Cross & Blue Shield of W.Va. revealed that the organization was committed to the professional development of its employees. Discussions, involving both the Ray M. Evans College of Lifelong Learning and the Jones-Benedum College of Business at the University, were successfully concluded with the signing of a major contract in January, 1987. This contract calls for the delivery on-site of the entire Executive MBA program to a group of selected Blue Cross employees during the period of September, 1987 to August, 1989.

Background

One of the first steps taken by Evans College to help chart a new direction in services to the Charleston community was the Community Assessment Program (CAP) conducted by the office of Adult Learning Services (OALS) of the College Board. The CAP program has five components:

- a demographic and economic study of the community;
- a survey of adult learners;
- a survey of community organizations' readiness for Contract Training;
- a survey of competing institutions;
- a study of internal institutional attitudes and policies regarding adult learning.

While all of the CAP program's components have been valuable and the consultant's report "Policy Recommendations for Educating Adults at the University of Charleston" (Aslanian, 1986) is particularly useful, the Contract Training segment (CAP 3) has had the most immediate impact. The process began as part of a two-day strategy session, conducted in January 1986, once OALS had been identified and secured as the

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appropriate consultant. This strategy session was lead by OALS representatives Carol Aslanian and Henry (Mitch) Brickell. Twelve key University of Charleston administrative and faculty people participated in order to determine:

- the policy questions we wanted the study to answer;
- approval of the methodology and survey questions;
- the identity of the Kanawha Valley organizations to approach regarding their potential interest in Contract Training.

The session was successful by accounts from both sides. University of Charleston representatives learned a great deal about their institution and its practices toward adults. From a group of sixty possible businesses, twelve agreed to see us during a planned 3-day period of intensive corporate calls lead by Aslanian and Brickell.

Contract Training - Initial Organizational Interviews

On March 3-5, 1986, the consultants returned to guide those twelve calls. That process is described in Appendix A. That first round of calls resulted in three contracts, worth more than $50,000 in revenue.

Contract Training - Definition

> "Contract Training refers to a partnership in which an organization contracts directly with a college/university to supply instruction (credit or non-credit) to its employees, its members, or perhaps its clients. That is, contract training is used to mean an arrangement in which the organization itself is "learning" by providing for the training of the individuals for whom it is responsible. Contract training is often conducted at the organization's own site, but may be held on campus or at suitable hotel/conference facilities. Instructional dates are often not identical to campus-based semesters or terms and the tuition rate is negotiated." (Aslanian, 1986).

Partnership Roles of Colleges

Appendix B contains an outline of the respective roles of the continuing education office (the Evans College of Lifelong Learning) and the other departments, schools or colleges which actually deliver the instructional product. In the case of Blue Cross/Blue Shield, the initial meeting was between the Executive Vice President/Treasurer of Blue Cross/Blue Shield and the dean of Evans College. During that meeting, Peter K. Mills learned of the organization's interest in developing its people, outlined the menu of University of Charleston offerings and described the Contract Training concept. The possibility of an on-site MBA program intrigued Sam Torrisi, who arranged for a face to face meeting with James M. Heaton, President of Blue Cross/Blue Shield for Mills and Dennis McMillen. During that meeting, Mills and McMillen:

- clarified questions and issues in Contract Training;
- explained the concept and design of the Executive MBA;
- and confirmed the commitment of the Blue Cross leadership to

human resources development.

The two deans collaborated on a time line and other implementation details, including a pricing estimate. Given the go-ahead by Torrisi in early December, Mills prepared a formal proposal in cooperation with McMillen and submitted it late in the month. The contract was approved in early January. The time line follows:

Time Line for Implementation

December 19, 1986	Formal Proposal Delivered
Early January, 1987	Decision - go/no go
Week of Jan. 12-16, 1987	Presentation on Program to Potential Registrants at Blue Cross/Blue Shield
February 7, 1987	Application deadline for GMAT
March 21, 1987	Graduate Management Admissions Test Date; test to be conducted on-site by University officials 8:00 a.m. - 12:30 p.m.
April 1, 1987	Deadline for Application to Executive MBA Program
May, 1987	1) Faculty Planning and Consultation Session at Blue Cross/Blue Shield 2) Discussion with leadership regarding successful applicants.
June 1, 1987	Notification of Acceptance to Candidates
July 14-August 6, 1987	Optional (non-credit) Executive MBA Preview and Refresher
August 25, 1987	Classes Begin, Fall Term
July 20, 1989	Program Completion

The Executive MBA

Concept of the Program and the Market

The University of Charleston, in an effort to serve the needs of our region, seeks opportunities for program development which meet this objective.

Two state supported institutions (9 and 50 miles away) have been offering graduate education in business for a number of years predominantly to part-time, evening students. A gap, however, still existed in the marketplace. Practicing managers who needed to know the length of their commitment, time of course offerings, and program objectives consistent with their goals were not being effectively served. As a result, these individuals felt disenfranchised from graduate education in Business.

With desire to meet needs and demand both in place, it seemed appropriate to look at the potential delivery of an Executive MBA program. A number of area business leaders were involved in a process to define program designs which might fit the regional need. Also, the formats of other Executive MBA programs were studied to determine which portions of existing programs might be adapted or adopted.

The program structure was then formulated and sent to the North Central Association which conducted an on-site visit and granted accreditation in March of 1985. Once the accreditation was received, the College of Business program began classes in September of the same year.

Design of the Executive MBA Program

The executive MBA program is intended for business-experienced, upwardly mobile students who enter the program in groups and stay together throughout the fixed sequence of practical, job-applicable, management courses. Because of these unique characteristics of the student base, registration payment and provision of materials is handled at the beginning of each quarter. Periodically, refreshments are provided in conjunction with guest speakers or special events. These amenities help further differentiate the program from other available options. One per credit charge includes the cost of induction, texts and materials, and special events.

The MBA executive program consists of 12 courses spread over two years, meeting on weekday evenings and utilizing an occasional Saturday morning for workshops. The academic year consists of four ten week quarters, beginning in early September and ending in late June, with appropriate breaks at Thanksgiving, Christmas and in the spring.

Transfer of courses from other graduate programs may be accepted, up to a maximum of three. Because of the nature of the program, transfer of credits is discouraged. Students are encouraged to participate in each module of the program, even if they have established credits previously.

Two significant elements of each course, which may not be obvious, are a high level of group interaction and an attempt to bring the businesses represented by the participants into the classroom on a regular basis. That is, whenever possible, the field testing of concepts, the cases, the examples and the issues to be discussed will be drawn from the real day-to-day business experiences of the class members.

In the case of Blue Cross, this concept became a part of contract negotiating. Blue Cross management wanted the courses to stress health care examples. The College of Business agreed to include them, but not exclusively. To preserve the academic integrity of the program and insure breadth, it was agreed that no more than twenty (20) of the thirty-two (32) spaces in the class would be reserved for Blue Cross/Blue Shield. The remaining twelve (12) would come from other segments of the business community.

Program Advantages

- Courses that yield on-the-job payoff.
- A practical approach that takes advantage of the experiences students bring to the program.
- Participants representing a wide variety of organizations and experiences.
- Small classes, one location, personal atmosphere and attention from faculty and staff.
- Workshops, case studies, group projects and films that broaden the academic experience.
- An education designed for upwardly mobile managers as they move to higher level positions and those who want to improve their performance on their present job.

MBA Program Faculty

The instructional corps includes both full-time faculty with responsibilities in the undergraduate program and practitioners drawn from the local community. No faculty member teaches more than two of twelve course modules to insure proper diversity in exposure for students. The dominant strength of the faculty lies in the area of applicability of business theory to bring about short-term and long-term improvement for the students' business enterprises.

Faculty for the Blue Cross program have agreed to meet with Blue Cross officials to obtain an insight into the company and its environment and to discuss ways that the health care industry can be incorporated into content.

Recruiting and Admitting of Students

Because of the need for students who can both benefit from and make contribution to the program, the admissions process is designed to focus on certain characteristics of prospective students. The breadth and depth of experience coupled with strong recommendations for applicants constitutes the most important criterion. Applicants must possess an undergraduate degree and provide scores from an acceptable aptitude indicator. Diversity in functional areas of expertise is also considered in the selection process.

Recruiting for the program has been done predominantly through local newspaper advertisement, word-of-mouth recommendation from current participants, and distribution of informational brochures. The recruiting effort has to date not been aggressive in approach. The nature of the program tends to keep a focus on selection rather than recruitment.

For the Blue Cross program, an information and question session was held for the eligible employees. Eight interested persons attended. After an understanding of the requirements, the time and academic commitment and the admission process, thirty individuals applied to take the GMAT test. It is expected that 18-22 will qualify for the program.

Benefits of Contract Training and the Blue Cross Relationship

From the point of view of Evans College, Contract Training has enormous benefits for the institution:

- it provides a concrete way for Continuing Education to cooperate with and build enrollments for sister organizations within the University;
- the mechanism is an effective way to market non-credit courses to target groups, rather than to use the expensive broadside direct-mail approach;
- there are no advertising costs;
- the program generally uses the clients' facilities;
- the student population is guaranteed up-front;
- pricing, while negotiable, results generally in one guaranteed check being written up-front, there are no collection costs. (U.C. was able to offer BC/BS a discounted price, which was a win-win for both organizations);
- it brings the University to the community; it encourages communication, referral and other program ideas. (Blue Cross has now state that it wants undergraduate courses on-site);
- Contract Training puts meaning into an institution's flowery mission statement commitment to public service.

For the Business College, the relationship with Blue Cross/Blue Shield constitutes a rather unique opportunity for expansion of the MBA program. The ability of the program to serve the need of this particular business gives rise to the possibility that further arrangements of this type may be possible in the future. If this is in fact the case, the student selection and mixing process becomes even more important when addressing the recruitment question.

As our initial graduates continue to help promote the program through their community contacts and contributions, the need for expensive shotgun type recruiting can be avoided. This feature may be one which makes programs specifically targeted to identifiable markets extremely attractive to institutions.

The Executive MBA Program enables us to reach a segment of the business community which can provide invaluable information to facilitate the currency of courses in our programs, helps expand contacts for placement, aids resource, acquisition, and it gives full-time faculty insight in a new setting which can be stimulating and mind-expanding.

Conclusion

This presentation has described a structured way that two collegiate units cooperated to design a special relationship with a corporate client which wished to provide graduate business education to its personnel. The University of Charleston looks for positive outcomes from the specific program and others like it. The concept of "Contract Training" has caught the imaginations of faculty and staff at U.C.

CAP 3: ORGANIZATIONS

The College Board's Community Assessment Program is designed to identify the degree to which Contract Training opportunities exist for a college.

The survey of organizations for the University of Charleston was carried out in three steps.

First, the College Board staff contacted the organizations selected by the University of Charleston to set up twelve face-to-face interviews. A list of all of the organizations contacted and the results of the initial contacts is presented at the end of this section of the study.

Second, College board and Policy Studies in Education staff and representatives of the University of Charleston conducted interviews in March, 1986, with officials of the twelve organizations. The College Board staff then wrote profiles of these organizations to record the interview discussions.

Third, representatives of the University of Charleston then conducted interviews in March with officials of two additional organizations. The representatives then wrote profiles of these organizations to record the interview discussions.

Those interviewed included chief administrators, personnel directors, directors of training and development, and the like. During the interviews, specific information about each organization's interest in contracting with the University of Charleston was collected.

The interviews were guided by several documents: (1) a contact form, which listed officials to be interviewed at a scheduled time and location; (2) instructions to the interviewer, which carefully spelled out interview protocol; (3) an organization background questionnaire, which gathered characteristics of the organization--such as the number of employees, extent of educational benefits, and training organizations with which training has been arranged in the past; and (4) a questionnaire containing specific questions to be asked about each course or program wanted by the organization.

Page 151, The Demand for Adult Education: Findings from a Community Survey for the University of Charleston, OALS, The College Board, July 1986.

APPENDIX B

THE UNIVERSITY OF CHARLESTON

ROLES/RESPONSIBILITIES OF COLLEGES PARTICIPATING IN CONTRACT TRAINING

EVANS COLLEGE OF LIFELONG LEARNING

- Acts as broker for institution in making prospective client contacts
- Identifies and secures support of cooperating unit
- Coordinates proposal development with cooperating unit
- Conducts correspondence, including proposals, with client organizations
- Prepares project budget
- Administers contract training budget account:
  - approves expenditures
  - draws salary requisitions
- Arranges for facilities at client site or suitable alternative
- Arranges for instructor site visit, if desirable
- Orders texts, if any, at request of cooperating unit
- Prepares "welcome" packet of U.C. materials
- Maintains periodic contact with client representative throughout delivery phase
- Coordinates evaluation of project with cooperating unit
- Maintains contract training files

COOPERATING COLLEGE/SCHOOL

- Refers prospective contract training opportunities to Evans College
- Participates in proposal development with Evans College, particularly instructional aspects
- Selects and orients instructors for approved projects, with Evans participation; agrees with Evans on instructor compensation
- Develops curriculm, if needed, or modifies existing course/ curracula to suit situation
- Selects appropriate materials, equipment, or instructional aids, texts, etc
- Provides for up-front instructor site visit, if appropriate, to ensure that program delivered is what client wants and that there is a clear understanding of the needs of the target group
- Instructor delivers texts and "welcome" packet of U.C. materials to first session
- Conducts in-course evaluation and makes adjustments
- Instructor turns in grades (if appropriate) to cooperating college, copy to Evans College
- Participates in post-activity evaluation, with Evans

APPENDIX C

ORGANIZATION PROFILE - Contract Training Opportunity

Blue Cross/Blue Shield of W.Va. Inc.
200 Kanawha Blvd., E.
P.O. Box 1353
Charleston, WV 25325

James W. Heaton,
President

Salvatore T. "Sam" Torrisi
Executive V.P./Treas.

(304) 347-7797

BACKGROUND:

* Exempt employees total 186.

* Non-exempt employees total 281.

* Total number of employees based at the Charleston location is 467.

* Currently 19 employees are enrolled in evening classes.

* 162 employees or 23% have post-baccalaureate degrees or certificates.

* 128 employees or 18% have bachelor degrees.

* 20 employees or 3% have associate (2 year) degrees.

* 15 employees or 2% have masters degrees.

* 28 employees or 4% have other (CPA-RN-LPN, etc.)

The above numbers are based on an employee count of 703 corporate-wide and the 162 employees with advanced work have attended 56 different schools, hospitals, colleges and universities.

Blue Cross & Blue Shield has an in-house Education and Development Program which does training in communication, a company orientation, job specific training and some management courses and a new automated claims system processes 15-20,000 claims per week.

President Heaton sees that the nature of the company's business is changing and will continue to change. His professional staff, a diverse group of RN's, CPN's, physicians, actuaries, attorneys, accountants and administrators need to continually grow and develop, be challenged and updated. Eighty (80%) percent of the employees are women.

The company has a tuition reimbursement program which pays 100% of costs (75% of books) for job-related courses, with all courses in a degree program eligible for reimbursement. The employee must pay those dollars back, within certain guidelines, if he/she leaves the organization.

The company has strong interest in having an on-site Executive MBA program delivered in its new facility on Kanawha Blvd., to be occupied in late 1986 - early 1987.

TRAINING FACILITIES:

- The amphitheatre will seat approximately 60 persons.
- The Board Room will accomodate 92 persons. If the Board Room is divided into two rooms, one room will seat 16 persons; the other room will seat 56 persons.
- The 3rd Floor Conference Room will seat approximately 45 persons. If divided into two conference rooms, one room will seat approximately 30 persons; the other room will seat approximately 15 persons.

COURSE WANTED

TITLE 1:	Executive MBA Program
Participants:	Drawn from approximately 80-90 bachelor's level professional personnel in the Charleston office.
Location:	New company facility.
Preferred Schedule:	Fall, 1987; Quarter System; other non-Blue Cross participants welcome; early evening Tuesday/Thursday, on employees' time. Maximum class size: 32.
Credit:	Graduate credit.
Assistance from Employer:	Work with instructor to include health care applications, pay University of Charleston up-front for Blue Cross enrollees in one check per course. A/V assistance; duplicating assistance; advise the instructor; in company personnel records. note participation & graduation.

NEXT STEPS:

1. Evans College and the Jones-Benedum College of Business will develop a sequence of events with deadline dates, plus more program details in advance of mid to late November meeting, which will include Education and Development representatives.
2. A formal proposal, assuming a go-ahead after the next meeting, would be prepared in early January, 1987.

Level of Interest in Contract Training:

Low 1 2 3 4 5 6 7 8 9 [✓ 10] High

Date of Interview:	October 17, 1986
Profile prepared by:	Peter K. Mills
Profile prepared for:	Peter K. Mills & Dennis McMillen The University of Charleston

THAT SECTOR OF CORPORATE EDUCATION SEEKING A HIGHER EDUCATION PARTNER

by
James A. Ratigan

Three helpful considerations

To consider our topic more effectively it might be helpful briefly to review three considerations. All of these considerations are quite familiar to us. They have been reported in a number of sources and have been collected with a number of other very interesting observations by John Naisbitt in his best seller of a few years ago, Megatrends. They are the information society, the either/or versus multiple options, and "The Law of Situation."

Information Society

At the turn of the century over thirty-three percent of Americans worked as farmers, but by the year 1980 less than three (3) percent of Americans worked as farmers. The farmer was replaced as a result of the industrial revolution by the laborer as the largest class of American workers. However, very quietly almost imperceptibly, in 1956 an important new development took place as the number of Americans employed in blue collar jobs was exceeded for the first time by the number of those employed in white collar jobs. Each of these changes, from the agrarian to the industrial to the information society was a change not only of occupational numbers but of profound social and educational significance.

By the year 1979 the largest category of employment for Americans was clerk, followed by the professional category. The post-industrial society was often described as a service economy; however, the so-called service sector minus the information or knowledge worker has remained at about eleven to twelve percent since 1950. The critical change is reflected in the fact that in 1950 only seventeen percent of Americans worked in information jobs, but by 1980 the number had risen to over sixty percent. (Naisbitt, p. 14)

In the information society, value is increased by knowledge not by labor. In an industrial society, the strategic resource is capital, but in our new information society, the strategic resource is information, as pointed out by Harvard sociologist Daniel Bell. "The productivity of

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knowledge has already become the key to productivity, competitive strength, and economic achievement. Knowledge has already become the primary industry, the industry that supplies the economy the essential and central resources of production," according to Peter Drucker. (Naisbitt, p. 17).

In the industrial society knowledge is important. Mechanics, welders, electricians, etc. need knowledge to do their jobs well. However, in the information society, the creation, processing and distribution of information is the job. To get a glimpse of the economic value of knowledge, we can simply observe that while American markets are in trouble abroad, there is little trouble in exporting American know-how and expertise. Higher education needs to become aware when knowledge and information, which have long been their province, now are the central items of society and the prime products of American "industry".

Either/Or versus Multiple Options

The second observation is the either/or choices, which had been the norm, versus the multiple options which daily confront us at almost every turn. When I was young we went to the movies on Saturday afternoon or we did not go; we saw whatever movie was showing at the local theater or we did not see anything. Today my children have their choice of any first-run (not always first-rate) movie they desire and they view it on the VCR whenever they choose. Television programming used to be a choice of three major networks or no TV, but with the advent of cable television the choices became almost limitless.

People used to get married and raise a family or they did not. (And most people did marry; few people lived alone.) In 1955, according to the Harvard Study on Families, about ten percent of Americans lived alone, but in 1980 over twenty-five percent of Americans lived in single person households. By 1990 husband-wife households with only one working spouse will represent only fourteen percent of all households. Over a dozen separate types of households will eclipse the conventional family. (Naisbitt, pp 233-234).

Women as a group used to have an either/or option. Women could remain in the home and work there or they could join the labor force to do women's work (generally limited to teaching, nursing and secretarial). But by 1990 eight times as many women will earn a college degree in business as did in the 60's. In 1969 less than seven percent of law school students were women, but by 1979 over thirty-one percent were women. Today there are more women than men in both college and graduate school. (Naisbitt, p. 235).

It also used to be the situation that when people finished high school they faced the decision to go to college or not. Today the educators' idea of lifelong learning is more than an idea. At colleges across the country adult students are constituting a token presence to being the majority of the student body. It also used to be that college courses were taught on campus and by colleges or they were not college courses. Today colleges offer courses on campus, on public television, through the mail, via computer, etc. And college courses are sponsored not only by colleges but also by the military, by community organizations, by countless major businesses, by governmental agencies, etc.

Higher education needs to become aware when "college age" now means a choice of over forty years instead of four years; when the decision to go to college is not made only once but can be made many times. Higher education needs to become aware when the "campus" can be extended to cover students who live thousands of miles away. Higher education needs to become aware when colleges and universities are now only one of the providers of knowledge.

"The Law of the Situation"

The third consideration can be referred to as "The Law of the Situation." This term was coined by the first management consultant in the United States, Mary Parker Follett, in 1904. The term simply asks "What business are you really in?" (Naisbitt, p. 85).

When the environment changes, a business or institution must reexamine its purpose in light of the changed environment. This reexamination does not always happen.

A most visible example where the reexamination did not occur is the American railroads. At one point the railroads were the largest industry in the U.S. and the Pennsylvania Railroad was pointed out as a model of good management. But the environment began to change, a whole nationwide interstate highway system was being constructed and new, larger more efficient trucks were being produced. The first air mail flight covering only few miles in New Jersey had given way to large cargo planes and jumbo jets capable of carrying massive freight loads. Passenger flights offered speed, comfort and passenger service. However, it appears as if those operating the railroads continued to see themselves as being in the railroad business. They did not reexamine the situation to be able to realize that they were really in the transportation business.

Like contemporary dinosaurs, the railroads ignored the advent of the airplane, the modern truck and the great developments in the passenger auto. They acted as if they were in the railroading business and railroading would go on forever. Many of today's young people have never heard of the Pennsylvania Railroad, that institution which was viewed as the symbol of stability and security when I was a youth.

In an era when the whole society is undergoing a major shift (from the industrial to informational economy); when knowledge is now the central product of business and not limited to colleges; when the total composition, location and objectives of today's student body is in a significant state of change, higher education needs to be aware of "The Law of the Situation." Each college and university must reexamine its purpose and ask "are we in the business of running a college, separate from the rest of the world, or are we really in the education business?

Survey of Corporate Education

Today the relationship between higher education and other providers of postsecondary education covers a wide spectrum. At one end of the spectrum are those providers who provide very job specific information. At the other end are those organizations which offer all the courses necessary for a degree. Another group, somewhere toward the middle, are those organizations which provide training and courses which are truly college level offerings, do not offer degree programs themselves, but often do respect and are willing to support degree programs.

Corporations with Job-Specific Training

In many ways this category encompasses the types of instruction that has popularly been understood as "training." I will describe this category more briefly than the other two. Frequently the training is very technical or very practical in nature. It appears that many companies in the retail areas are involved in this type of training. Supermarkets and large retail chains are a few examples of companies that frequently have limited training offerings. If a particular job title requires formal education, then a person is only hired for that position who already has the required formal education. Job advancement and promotion are not necessarily related to college level training nor the completion of a degree program.

Corporations that Offer Degree Programs

At the other end of the spectrum, however, are those corporate educators who do not offer training in a limited sense. Rather they offer education on a college or graduate level. They offer not only a few courses but all the courses required for a full degree program . They, in fact, award their own degree. Half of them already have full regional accreditation and the other half are on the way to completing the accreditation process.

In her work, Corporate Classsrooms, Nell Eurich groups degree granting organizations into three headings and cites at least half a dozen institutions in each group. (Eurich, pp. 88-95).

The first group are identified as individual business corporations. Each degree granting institution was developed by a specific corporation. They include the General Motors Institute, Northrop University (from Northrop Aircraft Corporation), Watterson College (owned by Jostens, Inc. which purchased MetriData Education Systems in 1983), Wang Institute of Graduate Studies (Dr. An Wang and Wang Laboratories, Inc.). McDonald's Management Institute (McDonald's Corporation), and DeVry Institutes of Technology (Bell & Howell Company).

The next group of corporate education institutions are those with industrywide interest and-concern. They include the Institute of Textile Technology (sponsored as a Cooperative Program of the Textile Industry in the United States and Canada), The College of Insurance (by the Insurance Society of New York), the American College (by the National Association of Life Underwriters), American Institute of Banking at Boston (by Boston Chapter of AIB), National Technological University (by Major Business Corporations, U.S. Government and AMCEE), and the American Graduate School of International Management (by Banks, Individuals and U.S. Government).

The third group of corporate education institutions are those started by professional, research and consulting organizations. They include the Arthur D. Little Management Education Institute (by Arthur D. Little, Inc.), Rand Graduate Institute (by the Rand Corporation), Institute of Management Competency (by American Management Associations), Industrial Management Institute (by Midwest Industrial Management Association), MGH Institute of Health Professions (by Massachusetts General Hospital Corporation) and the Boston Architectural Center School of Architecture (by the Boston Architectural Center).

Although these corporate education institutions are very different one from another they do share certain characteristics in common. Each institution was sponsored by a corporation whose primary activity is not education. Each of these institutions are currently degree granting programs. Each of them have (or in the process of obtaining) full accreditation from one of the six regional accrediting bodies. Half of these institutions award degrees on the graduate level and the other half award degrees on the undergraduate level.

There is no special nationwide registry listing corporate colleges, so there may be even more than the eighteen cited in the listing above. The most recent corporate college, The National Technological University, was started within the past two years and is a contemporary model, with instruction going by satellite to corporate classrooms and to military personnel. The National Technological University operates without a campus.

Will there be more additions to this list in the coming months and years? In a U.S. News and World Report cited by the New York Times in 1983, the magazine suggests: "Industry, for one, will become much more involved in education and job training. Hundreds of corporations will grant degrees, most often in high technology, science and engineering, where state-of-the-art equipment and research will surpass that on most campuses. "The comments by U.S. News and World Report are only a prediction. However, the fact that corporate colleges already exist, award their own degrees and have successfully passed the same educational hurdles used to accredit traditional higher education is a fact of which higher education needs to be aware.

Corporate Education Seeking a Higher Education Partner

Between these two ends of the spectrum there are numerous opportunities for more cooperative efforts between corporate education and higher education. However, for our immediate purposes I would like to focus upon one specific area that is already well defined and which seems to offer a ready point of mutual benefit.

There are a number of corporate education programs that do not offer their own degrees, but which do offer college level courses. The determination that their offerings are college level is made not by the corporate staff but rather by teams of subject matter experts from college and university faculties. These corporate programs offer their own courses in support of their own corporate goals. Courses are usually job related and designed to help employees be more effective and more competent in their corporate tasks. However, the courses are not so job specific that they do not provide adequate perspective and theoretical understanding of the subject matter. These corporate educators are often very interested in and supportive of degree programs but they look to higher education for that service.

Who Are these Corporate Educators?

To look more closely at this sector of corporate education seeking higher education partnership, I would like to focus upon those corporate education programs that are listed in the 1986 edition of The National Guide, published by The American Council on Education. Each of these programs has been determined to offer courses that range on the postsecondary level from the undergraduate to the graduate level and has earned specific credit recommendations for the courses.

There is great variety among the corporate educators listed in The National Guide. Some are from the public sector including the New Jersey Department of Human Services and the U.S. Postal Service. Some are from the private sector including Burroughs Corporation (now part of Unisys), NCR Corporation and Westinghouse Corporation. Some are from the proprietary sector including The Chubb Institute, Brick Computer Science School and the Katherine Gibbs Schools. Finally, some are from the professional or community sector including the National Association of Realtors, Boys Scouts of America and the Young Women's Christian Association.

There is diversity in the size and geographical distribution of the corporate educators. Some are smaller in size like American Sterilizer Co. (AMSCO), Fox and Lazo Inc. or American Institute for Paralegal Studies. Other corporate educators are high up on the Fortune 500 listing including General Electric Corporation, IBM and AT&T. Some corporate educators function in a rather prescribed geographical area, e.g. Kansas Gas & Electric Company, Greater Cincinnati Industrial Training Corporation or California Department of Transportation. Other corporate educators function on an interstate, national or international level. These would include Kepner-Tregoe, Dale Carnegie & Associates, Inc., and AT&T.

Not unexpectedly there is also a wide spread in the courses that each corporate educator has listed in The National Guide. Over half of the organizations have less than ten courses listed in The National Guide and about one quarter of the organizations have three or fewer courses listed. At the other end of the scale there are four organizations each of which has over one hundred courses recommended for college credit. The great majority of courses are listed as lower level or upper level baccalaureate offerings. However, one of every four corporate educators has at least some of their courses which have been evaluated as being at the graduate level.

What Common Features Exist Among Corporate Educators listed in The National Guide

There are a number of common features that exist among corporate educators listed in The National Guide which make them ideal partners for higher education. These are organizations which respect the value of learning and offer solid, college-level instruction. These are programs which generally respect academic degrees but yet want to retain a corporate focus, and therefore look to higher education to complement and supplement the instruction they provide.

In many cases they see added benefit to their "student" (employee) occurring if they would be able to complete a degree. Through their courses they have often helped student motivation by graphically demonstrating a connection (relevance?) between learning and their career advancement. In many cases they have capitalized upon a practical need and have introduced (or reintroduced) the student to the world of academic achievement.

How Have These Corporate Educators Extended Themselves Toward Higher Education?

In many ways these corporate educators have taken the first step, have assumed all the initial risks in their attempts to become partners with higher education.

These corporate educators have invited the American Council On Education (ACE) through its Program on Noncollegiate Sponsored Instruction (PONSI) to come to their site, to bring subject matter experts from college and university faculties and to examine in detail the courses they offer. In preparation for this visit the corporate educators prepare all the application materials that ACE requires and devote considerable time and effort to this preparation. Finally the corporate educators assume all the financial expenses involved in the evaluation process.

As a result of the ACE evaluation, the faculty review team determines which (if any) of the corporate courses are equivalent to academic courses offered by colleges and universities as part of their degree programs. Since ACE is not a degree granting institution, the corporate educators do not receive college (or academic) credit but rather a formal recommendation that their course(s) are equivalent to college credit courses.

This ACE recommendation for credit is valuable indeed, but again it is no guarantee. The corporate educators must still depend upon the policies and procedures at each and every college to determine if the college will accept the ACE recommendation and actually award academic credit or not. Again, the corporate educator has assumed the responsibility for the reaching out to higher education, without any individual college needing to make any investment of time, money or academic commitment.

In summary, these corporate educators are providing college level instruction and motivating students to want to and be able to complete degree programs. These corporate educators do not want to be colleges and do not want to offer degree programs of their own. They want to cooperate with higher education in this joint enterprise. In the "information age", knowledge and learning are now the central factor for both business and higher education.

To make a working partnership possible, these corporate educators voluntarily submit to the inspection and scrutiny of higher education to allow higher education to be confident that this part of corporate education is truly academic in nature and can validly be used as partial fulfillment of degree requirements. Corporate education assumes the work and costs involved in this evaluation to respond to higher education criteria. Finally, corporate education makes these steps toward partnership with higher education without requiring any prior commitment by higher education.

What is the Response of Higher Education?

The response of higher education to corporate education has varied. Throughout the country over one thousand colleges and universities have awarded academic credit to students based upon PONSI recommendations. However, this response is not consistent and many times represents a recognition given to an individual student rather than utilizing this situation to develop a valuable partnership with corporate educators.

Corporate educators, clearly those listed in The National Guide, seem to offer a natural partnership with higher education. They have made the first steps and taken the initial risks. Some colleges, like academic dinosaurs, refuse to ask the question, "what business are we really in?" They prefer to keep running a college the way they have always done. Other colleges will ask the question and realize that they are in the education business. For these colleges, partnership with corporate educators might be a valuable step.

Corporate education, especially as expressed by those organizations in The National Guide, has taken the first steps. It is now time for higher education to join more fully with corporate education in a meaningful partnership to serve the student of today in the information age we all share.

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THE UNIVERSITY OF RHODE ISLAND/NEW ENGLAND TELEPHONE COMPANY PARTNERSHIP - ADULT STUDENTS IN THE WORKPLACE

by ~~Ri~~chard A. Roughton*

Background

At the University of Rhode Island, the College of Continuing Education's Special Programs Office works in close collaboration with New England Telephone (NET) so that credit courses can be offered on site at company locations throughout Rhode Island. After several months of planning, the first courses were offered in the fall 1986 semester.

Company officials and university program developers agreed from the outset that the best way to begin to meet the college level educational needs of company workers would be to increase their access to adult degree programs by offering sections of the Bachelor of General Studies (BGS) entry course (titled Pro-Seminar) at company locations.

Shared Goals

For New England Telephone Company, this approach met a strong felt need to encourage employees, particularly those in non-management job classifications, to take advantage of the educational assistance programs made available through collective bargaining agreements. The company's growing interest in employee education stems from a number of concerns. Primary among these is the company's desire to encourage openmindedness and flexibility in employees so that they will be capable of adapting to change. This adaptability is crucial over the next decade because NET believes it will be adjusting both to rapidly evolving technology and to increasingly demanding customers. In this environment, the company's strong commitment to promoting managers from within makes the further education of non-management employees an especially important issue. For this reason, the company is interested not only in encouraging employees to take entry level courses, but also to continue their education so that they might earn baccalaureate degrees. This goal dovetails well with the University's objective in its continuing education work of placing high priority on attracting qualified adults into degree programs.

The Entry Course

With these compatible goals in mind, the partners agreed that the Bachelor of General Studies Pro-Seminar is the logical beginning point. More than any other entry level course available, this Pro-Seminar offers a challenging introduction to the world of college work. It is restricted to adults returning to school after a long absence from formal education. The course is offered to groups of sixteen students on--a pass/fail basis and earns four semester credits. To Pass, the student has to perform well at tasks that include college writing, oral presentations, critical reading, and use of the library as a research tool. In addition, the student receives orientation to the university and its various degree options. The Pro-Seminar's success is reflected in the consistently positive feedback from its successful students who attest to the course's role in helping them realize their potential as college students. Thus for many years sixty percent of those who successfully completed the course have proceeded successfully towards their degree.

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The First Classes

With agreement on the Pro-Seminar as the logical first course to offer NET employees in the workplace, in September 1986 the University offered two sections of the course at the downtown center of New England Telephone Company. The sections enrolled 13 and 8 students respectively. Out of the twenty one, eight students withdrew before midsemester, largely because they were unable to accommodate the course's workload into their schedules.

Thirteen students completed the course, eleven with Pass as their grade while two students failed. By February 1987, two students who had passed the Pro-Seminar matriculated into Continuing Education degree programs. Five of the eleven successful students registered for a second course in the Spring 1987 semester. The successful group included several (about ten) who had voluntarily taken advantage of the CCE Writing Lab and its various study skills assistance workshops.

Of the six who did not register, five have had at least one appointment with an academic advisor to make plans to take follow-up courses in either the summer or fall semesters of 1987. Thus, ten of the eleven successful students had persisted into their second semester or had made firm plans to continue in the foreseeable future.

From both company and university perspectives this represents a good success rate. This conclusion is particularly compelling for three reasons. First, from the beginning the partners believed that a persistence rate of one third would have justified the program; second because so many students told recruiters and advisors that they would not have tried at all if it had not been for the fact that the courses were offered in the work place; and third, it is striking that two students have already matriculated on the basis of their Pro-Seminar grade, their CLEP credits, and credits brought forward from previous college courses. Generally, students are reluctant to apply for admission until after they have earned C's or better in at least three current courses.

Initial Difficulties Shape the Partnership

Despite this success with the first two groups of students, the partnership had become aware that three particular difficulties had emerged in this initial effort to offer the Pro-Seminar in the workplace. These difficulties had to be addressed so that students in the workplace could be fully served.

I. Student Motivation

The first difficulty stemmed from the partnership's recurring concern that it had recruited students who were not highly motivated. This concern was reinforced by comments made by the two instructors after their initial class meetings. Their first impression was that the students did not seem as eager as those students taught in other settings by these same faculty. If this were indeed the case, we speculated that it might have resulted from the fact that all non-management employees (90+% of the students) were guaranteed that the company would pay their tuition before the course began. This coupled with the on-site location could have meant that students did not need to be motivated as highly as those who come to the university and paid course fees out of their own funds. We wondered, consequently, whether or not we had made things too easy for these students. Our concern grew when we learned that eight students had dropped the course during the first four weeks. All of these circumstances joined to require all of us to evaluate the program we were developing.

After some reflection, we agreed that on-site courses coupled with a strong tuition assistance program did make things easier for these NET students, however, our response need only be to make sure that we double our efforts to thoroughly inform any prospective students about the demanding workload in the Pro-Seminar. If the student motivation issue had the potential to become a serious problem, it would be substantially lessened by our making sure that students are aware that university courses are academically rigorous. Our advisement system and the Learning Assistance Workshops would surely play a role in helping the on-site students face academic reality.

II. Instructor Adjustment to Workplace Classes

The issue of student motivation became complicated by a second difficulty that arose because of our two instructors' initial adjustment to teaching in the workplace. Both came to their on-site classes with long experience teaching adults. Neither, however, had taught college courses in the workplace. After the first few class meetings the instructors reported concerns about student motivation. They expressed additional doubts about these students and their ability to perform academically. Workplace relationships, the instructors feared, might have a negative impact upon the classroom. Generally, the instructors seemed ill at ease during the initial weeks of their first on-site classes.

It remains unclear whether the instructors' reaction had been provoked by their initial view that they had less motivated groups of students. It is certainly possible that the instructor's were experiencing their own adaptation to a different classroom setting, Whatever the cause, both instructors experienced some difficulties during the first weeks of the semester. Instructor comments during this period included remarks like "the groups are too homogeneous", "perhaps this has been made too easy for them", and "they don't seem willing to do the necessary work". Whether time permitted everyone to become more comfortable or whether the classes were improved by the withdrawal of those students unable to accommodate the workload, by midsemester both instructors asserted that the classes were now on track. After the halfway point the instructors assessed their remaining students as performing above average.

In retrospect it seems as though the difficulty outlined above resulted from an understandable and necessary adjustment to our initial experience offering entry level undergraduate courses in the workplace. When we planned these two initial classes we had no experience to draw from to prepare our instructors to anticipate some differences. We had not fully anticipated, for example, that because most of the students knew one another as co-workers the classes would be more homogeneous than comparable Pro-Seminar sections taught at the University. Indeed, although our instructors prefer more heterogeneous groups, there is some evidence that student familiarity with one another on the job encourages them to spend time outside the classroom working and processing course materials together.

III. Lack of Support Services

The third area of difficulty we faced grew from our underestimating not only the on-site students needs for various support services, but also our assuming that those services could be provided at the University. The Partnership's goal had been to draw students into the entry course because we were confident that the Pro-Seminar draws students into the academic process, the University and on-campus courses.

We certainly do not question the goal, however, we expected too much from the new students too soon. We had good instructors, we brought advisors, peer counselors, and the Writing Lab Director to the on-site classes, but only to give a once over about available services. We then left the students to seek out all of these services at the College of

Continuing Education's main center. It soon became clear that we needed to do more to assure necessary advisement and other services to students who, given the location of their entry course, were less in touch with what the University could offer than were their colleagues in on-campus classes. Meanwhile, we had wrongly assumed that our experienced advisors would easily absorb this new and different student population with little or no preparation for the task. In addition, we failed to realize that we had made impossible workload demands on the academic advisement unit. Clearly, we needed to find a different way to offer services to the on-site students.

Some Preliminary Solutions

As these three areas of difficulty clarified for us, we recognized that we needed to make some changes to improve our project. First, we stopped prejudging student motivation but we made sure that students heard loud and clear about the academic demands of the entry course. Second, we recognized the need to spend more time with instructors so they would better appreciate the nature of on-site courses and students as we had come to understand them. And finally, we recognized the need to identify an advisor who would work with the partnership and who would be the students' principal contact with the University outside the classroom. Such an advisor would work initially with the student in the workplace, but would also draw them into on campus interaction whenever schedules permit. In this way students would be led from the workplace to the University as the principal site for their education.

The Decision to Continue

These solutions were quickly put in place, partly because the positive informal feedback from the first two groups of students had already persuaded NET and the University to work together to offer additional sections of the entry course during the spring 1987 semester. The decision was not only to offer the Pro-Seminar once again at NET's downtown center, but also at several of the company's regional offices in Rhode Island. This decision was also encouraged by the support the partnership received from NET management and by the desire of employees in regional worksites to have the same opportunity to begin college as their colleagues in the main office. In addition to offering the Pro-Seminar again, the partners agreed that those students who successfully completed the entry course were to have the opportunity to take at least one on-site follow-up course.

Meanwhile, both participants in the developing partnership recognized that institutional decisions needed to be made so that these expanded activities could be realized. It was clear that if on-site courses were to be offered to all interested and qualified NET employees in Rhode Island then both company and university would have to commit considerable resources to make this possible.

To this end, Ken Howells, Manager of NET's Providence accounting department, who had encouraged two of his staff to facilitate the first two sections, decided that these two employees would be released from some of their usual duties during November and December 1986 to work with the University's Director of Special Continuing Education Programs to offer college reentry to as many qualified NET employees in Rhode Island as could be encouraged to take advantage of this new opportunity.

Orientation Sessions are Held Throughout Rhode Island

The result was striking. Dorothy Henley and Sally Irons from New England Telephone and Richard Roughton from the University spent the last sixty days of 1986 conducting 28 orientation sessions at eighteen NET worksites for over 850 employees. The sessions offered information about the personal and professional value of further education for NET employees. In addition, the three orientation leaders drew from their personal and professional experiences to stress the helpful role of the BGS Pro-Seminar as an initial course. The three were ideally suited to their task. Irons was a 1985 BGS graduate from the University and Henley expects to receive her Bachelor of General Studies Degree in 1989. Both women had returned to their own college educations via the Pro-Seminar. Roughton had become Director of Special Programs after have coordinated the General Studies Program and the Pro-Seminar for four years. Because all three had worked for their respective employers for at least twenty years, each was equipped by experience to represent the breadth and depth of their institution. This contributed to the strong credibility Irons and Henley had with other NET employees during the orientation sessions. Sally Irons as a non-management employee and Dorothy Henley as a manager were able to relate to both groups of employees.

Employees quickly realized the advantages of having a proven course offered by experienced instructors at times and locations convenient to their work schedules. The orientations addressed both those who had tried college at an earlier time as well as those who stopped formal education with a high school diploma. All potential students were assured that the BGS Pro-Seminar would develop their abilities to accomplish college work while orienting them to the academic opportunities available to working adults attending the University on a part-time basis. Information was offered on the role of the CLEPs exam and assurance was given that Pro-Seminar instructors, academic advisors, and student services personnel would work with the students both at

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their course's on-site location and at the University's Providence Center.

A Successful Second Semester

The results of this outreach effort were impressive to all. After the twenty eight orientation sessions, Henley and Irons surveyed the various worksites and established that there was sufficient interest to warrant the team returning to each location to register students. This led to a rapid series of eleven registration sessions held in the major work centers at the start of the workday (usually 7 am). 116 students turned out to register; 99 students to take the Pro-Seminar. This large group of new students was divided into seven sections of the entry course that are now (April 1987) being taught at six NET worksites in Rhode Island. The remaining seventeen students, five of whom had passed the Pro-Seminar during the Fall 1986 semester, registered to take General Psychology. This course was also offered on-site.

With this impressive student registration, it became clear to all that there definitely needed to be a new advisor assigned to work exclusively with the on-site students. Consequently, a CCE graduate has been hired to a one half time advisor's position with full responsibility to assure the delivery of services to Partnership students. Emphasis was placed on the fact that the Pro-Seminar, a small number of second tier courses and some support services would be offered in the workplace as a beginning. The goal for both company and university was to draw students into an academic path that would slowly but surely lead students to the University or to its main continuing education center in Providence to continue coursework leading to a baccalaureate degree. From the beginning the partnership offered courses and academic support services with student persistence in mind. Thus far, company and university program managers have established that students are satisfied with the entry course in particular and the on-site course program in general.

Five Factors Contributing to Program Success

The collaborating partners have identified the following process as major factors that contribute to the program's success.

1) The Director of Special Programs in the College of Continuing Education met with company officials regarding the nature of the entry course and how it works. Because our initial contacts at NET were with past or current CCE students, the University had a receptive audience when it explained the ways the BGS Pro-Seminar helped students adapt to the demands of the world of college work. Convinced of

the value of this approach to adult continuing education, the company surveyed their employees to establish their interest in taking an entry level course.

2) Those employees who expressed interest were then invited to a General Information Session conducted jointly by Continuing Education staff and company personnel. The participation of both partners was invaluable in helping employees understand the University's commitment to on-site courses and the company's belief that this was an educational path that worked to enhance employee's opportunities for promotion. Company and University commitment were articulated in such a way as to assure employees that all wanted to improve student access to higher education. The information meetings offered potential students an overview of CCE programs available to working adults and how the entry course will meet their needs as adults returning to formal education. In addition those potential students who have any previous college experience are referred to a transcript evaluator. This latter point is essential because many employees do have some previous college and need to consult with a transcript evaluator before they can realistically plan to return to higher education.

3) Since over one hundred NET employees expressed an interest in registering, CCE staff conducted on-site registration sessions with the help of Pro-Seminar instructors. Both the information meetings and the registration sessions provided potential students not only with information about programs at the College of Continuing Education, but also useful tips on how to access the academic and student services available at CCE. The issues raised at these sessions included homework required, transfer credits, admissions procedures, student course load, grading, etc.

4) CCE selected instructors based upon their previous experience in working with adult students and their enthusiasm for offering courses in a work place setting. Once the courses were underway, CCE and its company partners stayed in close touch to ascertain the reasons for student successes and failures, at least from the instructor's point of view.

5) CCE set up the Special Programs Office in large part so that there would be a unit responsible to work in collaboration with business and industry to offer adults a variety of educational opportunities. Such opportunities were to be developed as self-supporting programs so that they would be compatible with other programs run by the new unit. This turned out to be a real advantage when the Partnership began to form because given the strong student response and the company's payment of fees, the University has, thus far, always had sufficient revenue that could be used immediately to cover Partnership expenses. This made, for example, the

addition of a new half-time advisor a relatively easy personnel matter.

At the the end of the first semester, all participants in the enterprise concluded that the above factors contributed to the on-site program's successes. Indeed, our "reaching out" approach helped attract employees who would not have otherwise tried college.

What the Partnership Has Learned

Although both companies and the University are delighted with the results to date and plan to expand the number of on-site offerings, we have learned a number of things that we need to consider more carefully, as we work to refine our collaboration efforts:

1) It is important when presenting this opportunity to potential students to stress that, although education will certainly bring benefits to their personal and professional lives, education is also hard work and requires a substantial commitment on their part. We have learned that many adults who have been away from formal education are out of touch with what formal credit education requires of them. Many simply lack the experience that would have taught them the necessary self-discipline and time management skills. These had to be learned in the Pro-Seminar.

2) Because we bring the educational opportunity to the students and because the New England Telephone Company pays all of their tuition, these employees as a group may not be as highly motivated as otherwise comparable groups of adult students who come to the College of Continuing Education for a similar course or set of courses. One adult student commented to the program director that she just could not see herself going to the University. She observed, however, that since we were offering courses on-site, and since NET would pay her tuition, she owed it to herself to try. She has, she stated, always wanted to go to college. The on-site offerings, in other words, make it easier to try. For those of us who are committed to broadening opportunities for adults, this is a heart-warming piece of feedback. We need, however, to make sure that projects like this one do not draw in students less likely to succeed than their colleagues whose motivation is more obvious.

3) There is an "our house/their house" phenomenon that impacts both students and their instructors. We have found that courses offered in the work place ("their house") may create a relatively uncomfortable environment for instructors who are certainly more experienced with the culture of a university setting ("our house"). At their first workplace class meeting, these instructors may have a similar reaction to students who are likely to feel awkward

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when they first come to the university for a course that will be taught on the faculty's home turf. This may explain why experienced teachers who have received outstanding evaluations for their work teaching the same entry courses at the University express initial discomfort with their on-site classes, even though their on-site students who successfully completed the Pro-Seminar are doing well.

4) Finally, entry courses offered in the workplace do broaden access to continuing higher education. Despite the 33% attrition rate and the discomforts noted above, the persistent students, their instructors, and the company managers involved with all agree that those students who succeed are benefitting from an educational opportunity that they might only have encountered at an even later stage in life, if at all, if it were not for the on-site offerings.

The program is regarded as an enormous success by all who have participated in its development. It is the College of Continuing Education's plan to expand its on-site offerings in collaboration with an expanding variety of businesses and work sites.

FROM ASSESSMENT TO COLLABORATION: CREATING A LOCAL NONCOLLEGIATE-SPONSORED INSTRUCTION EVALUATION SERVICE

by Brent Sargent

Increased attention on training and retraining the American workforce has spawned training programs run entirely by industry and prompted educational institutions to embark on complex satellite and extension activities. The results have been both positive and negative. We have succeeded in meeting local training needs, but we have done so at the cost of considerable duplication of effort and overlap of program content. Nearly identical content is being taught in both work and collegiate settings. At best, this apparent duplication represents inefficient use of scarce education resources. More significantly, it is symtomatic of the ineffectiveness of education and business in forming productive relationships.

For the past five years, the Vermont State Colleges Office of External Programs (OEP) has offered a practical solution. By conducting credit evaluations of existing employer-sponsored instructional programs, we have established a mutually recognized accreditation for overlapping content and encouraged productive, active encounters between employers and educational institutions. Our Education and Training Evaluation Service (ETES) has resulted in increased access to higher education for working adults and increased enrollments of adults in the state's colleges and universities. More significantly, however, it has fostered a new appreciation by education and business for one another's capabilities and needs and formed a positive basis for them to develop ongoing partnerships. In fact, of the more than thirty ETES evaluations we have conducted since 1982, over 50% have resulted in continued collaborative activities between colleges and participating organizations.

While our theory was that the mutually respectful initial dialogues of the partners would lead to these collaborative efforts, our hope was also that the effort would eventually culminate in attitudinal and perceptual changes—in working adults toward college, in colleges toward employer-sponsored educational programs, and in business and industry toward higher education. This general change in climate is a crucial, lasting goal of the project.

Evaluating noncollegiate-sponsored education is nothing new. The American Council on Education and the New York Regents have sponsored national and statewide evaluation services for years. OEP's approach, however, represents a viable local or regional alternative, particularly for evaluating programs with less-than-national-or-statewide impact. We have demonstrated that individual colleges or small consortia can realistically expand their individual assessment of prior learning programs into evaluation services which complement the larger national services. Beyond this, we have demonstrated that such initial cooperation leads to lasting collaboration. That is the unique and exciting aspect of the project.

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BACKGROUND AND ORIGINS

Since 1976, OEP has managed a statewide program for the Assessment of Prior Learning (APL). This APL program is one of the largest in the country--300 adults per year have their experiential learning assessed for credit equivalency and transfer to colleges throughout the state and region. It is also the only noninstitutionally-based assessment program in the nation. That is, the service is provided for several colleges, both public and private, and utilizes faculty evaluators from nearly all the colleges in the state. Through APL, OEP maintains close working relationships with hundreds of assessment-trained faculty in virtually all academic disciplines.

OEP also manages an Educational Brokering Service which puts Vermont's educational resources at the service of Vermont's employers by providing a mechanism for matching those resources to the specific needs of employers throughout the state. Through this service, we have developed service relationships with many businesses, industries, and government agencies in Vermont.

In the late 1970s, we began utilizing our resources to conduct occasional evaluations of noncollegiate-sponsored instructional programs at the request of some employers. While these early evaluations were successful, the cost to employers was very high. This precluded the utilization of this service by a broader audience. Therefore, in 1984 we sought and received federal support to develop and test a small-scale, regional evaluation program.

In October 1984 with support from the Fund for the Improvement of Postsecondary Education we began expanding and instituting our program on a full-time basis. Management of this project requires a 1/4-time Director, a full-time coordinator, and a 1/2 time support person. In addition, two other coordinators work on the project occasionally.

The initial three months of funding were devoted to the development of an action timeline, program guidelines, policies, procedures, and materials. Some of our materials already existed in rough form from the evaluations we had performed during the three previous years. However, these needed revision and standardization, and many others had to be developed from scratch.

Informational, monitoring, and contractual materials were generated, as were all the necessary forms, letters, files, transcripts, and promotional materials. Guidelines for program evaluations had to be generated also, as did formalized guidelines for the evaluation process itself. Formal policies for evaluating, crediting, and transcripting were adapted from and appended to those of our APL program.

A particularly important set of guidelines we found necessary to establish early were those identifying which instructional programs were appropriate or inappropriate for evaluation. Program length, content, and consistency had to be considered. Availability and sophistication of supporting documentation--student records, course descriptions, student and instructor evaluation criteria--were also important. Guidelines needed to be established regarding conflict of interest concerns, too. We decided, for instance, not to evaluate any program in which the award of credit would bring a direct profit to the sponsoring organization.

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We were able to adapt formal evaluation procedures from our previous program evaluations as well as from the New York Regents and the American Council on Education. Primarily, however, we drew from our nine years of experience running faculty evaluation committees for the individual APL program. As that program also utilizes teams of four faculty from different institutions to evaluate portfolios, we were able to adapt much of our modus operandi from our expertise there. An experienced assessment coordinator was therefore crucial as primary coordinator of this project.

Also during the first several months of the project we amassed a list of employers to contact. We started with those employers we knew, through our other programs, had well-established instructional programs and would likely be interested in evaluation. Some, in fact, had contacted us already. Second were employers who had appropriate programs, but whom we had not contacted. Then, we targeted those employers referred to us by others, and, finally, those we believed might be interested.

The actual marketing of the program took place in the first half of 1985. We visited professional associations, chambers of commerce, government agencies, and many individual employers. Informational letters went out with invitations to participate. Phone calls followed. An OEP promotional brochure detailing the ETES program as well as our other services was designed, printed, and distributed. In all, approximately 300 employers were contacted by letter and phone by June 1986, nine months into the project.

A typical evaluation team includes four faculty, representing four different colleges, and one OEP coordinator acting as facilitator. Evaluations last one or two days. FIPSE support covered much of the evaluation expenses during the two years of funding. Subsequently, employers have borne the full cost of evaluations; however, those costs are minimal considering the extent of potential benefit to employees and company alike. Currently, a one-day evaluation will cost a company roughly $2,000.

The evaluation process was, in many ways, the easiest part of the project for us. Our experience with faculty assessment teams in our APL program and in our previous organization evaluations prepared us to conduct efficient and accurate evaluations. In addition, many of our evaluation team members have had previous experience on assessment committees and, therefore, are already trained in evaluating experiential learning for college equivalency. This has proved particularly important to the effectiveness of the program.

Evaluations average eight hours in length and take place at the organization being evaluated. All necessary materials are available in the meeting room. These include all instructional materials, program descriptions, course outlines and syllabi, student and instructor records, sample tests, quizzes, essays, and any other material which might help the team understand the full scope of the program. Team members also receive and review program descriptions and instructional materials several weeks before the evaluation to appreciate the essential nature and content of the programs under review.

Typically, an evaluation begins with introductions of team members and an explanation and discussion of the team's tasks. This is followed by a general discussion of experiential learning assessment, ETES program goals, and evaluation strategies. Next, the instructional program administrator presents an introduction and overview of the program to be evaluated, followed by a question-and-answer session. Program content then is reviewed in depth by the team and initial questions for program participants outlined.

Program administrators, instructors, and students are on-call for interview by the team throughout the evaluation, as this, of course, is a crucial aspect in the process. After fully reviewing the materials and interviewing participants, the committee begins its decision-making process. Six decisions have to be made about any instruction reviewed: is it college-equivalent; if so, what is an accurate and appropriate course title; how much credit is to be awarded; what conditions, if any, are to be placed on the award of that credit; how is the course to be described; and what are the beginning and ending "exhibit" dates during which the credit award will be valid.

The final phase of the evaluation is a compilation of perceived strengths and weaknesses in the program and the committee's recommendations for the program's improvement. The committee members begin with an assumption that the instructional program does what it is supposed to do for its specific purpose within the organization and the recommendations for improvement are made--at the organization's request--primarily in regard to increasing the college-equivalency of the program for possible future evaluation.

After the evaluation, the results are formalized in an Addendum to the Transcript, prepared by OEP staff and mailed for final review to the team members. Finally, after the team has reviewed the materials, the results are sent, along with a letter outlining the team's recommendations and a package of student transcript request forms, to the organization.

RESULTS AND OUTCOMES

The Education and Training Evaluation Service has had varying results. In sheer numbers of evaluations the results so far have been less gratifying than we had planned. Still, the impact, while smaller than hoped, has been of high quality. The evaluations have been thorough, accurate, and well-received. High percentages of participants from the evaluated programs have begun formal higher education in institutions throughout Vermont. The percentage of ongoing collaborative efforts between colleges and participating organizations has also been much higher than anticipated--almost 50% rather than the estimated 30%. Finally, in terms of altering the climate for acceptance of experiential learning and of cooperation between industry and higher education, the project has had a clear impact.

Early in the project, it became clear that we had underestimated the amount of time, attention, and difficulty involved in bringing organizations to a point of readiness for evaluations. First, of our 300 initial contacts, very few had programs which were adequately consistent in their presentation or well enough developed to be considered for college credit. Second, of those programs consistently presented and well developed, many are not of a college level. Overly specific content is one problem. Rudimentary academic content is another. Typically, the training is appropriate to the needs of the company, but not equivalent to what is taught in the college classroom. A third problem, unhappily pervasive, is indecisiveness on the part of employers whether to involve their organizations in such an evaluation. Many organizations require enormous amounts of time, special attention, and encouragement to come to a final decision.

Faculty participation has been excellent. In all, sixty-six (66) faculty representing eighteen (18) colleges and universities have participated. To date student transcripts have been sent to twenty-seven (27) different postsecondary institutions around the country.

In our original FIPSE grant proposal we stated that this project would be considered a success if one-third of the evaluations resulted in future collaborative activities between clients and postsecondary institutions within one year of evaluation. In this crucial area we have worked hard, and the results have been excellent. To date almost one-half of our evaluations have resulted in further collaborations.

Continuation of the ETES project proceeds on a number of fronts. Students continue to utilize their credit for entry or advancement in higher education pursuits. Collaborative efforts are still developing and are fully expected to increase. The Education and Training Evaluation Service is still active and is now available to organizations at roughly two-thirds the cost as before the FIPSE funding. In addition, since each of the completed evaluations has a re-evaluation date scheduled, we expect to be active re-evaluating all programs for many years to come.

SUMMARY AND CONCLUSIONS

Services to evaluate noncollegiate-sponsored instructions, such as ETES, are workable, affordable, and practical. This type of program represents a logical complement to and extension of collegiate assessment of prior learning programs. The general techniques and concepts for evaluating noncollegiate-sponsored instruction are already well established in the successful APL programs of many colleges across the nation. Evaluation programs on local or regional levels also represent a necessary and logical complement to national and statewide programs such as those managed by ACE or the New York Regents. Particularly for evaluating noncollegiate-sponsored instructional programs with less-than-national-or-statewide impact, smaller-scale services are appropriate. Thus, individual schools or, better still, consortia of schools could effectively initiate such services for employers in their regions.

Institutions considering programs like ETES, though, should have previous experience and expertise in assessing individual prior learning. This type of program relies heavily on an institution's background in APL. The systems, policies, procedures, knowledge, and expertise necessary for operating a successful APL program are crucial factors in establishing a successful ETES-like program.

Evaluation programs are somewhat expensive and difficult to establish, but within a reasonable time both the expenses and the difficulties lessen. The biggest expenses are start-up costs in staff time, equipment, and materials. The major difficulties are those connected with initiating any major endeavor of this sort—establishing effective policies, procedures, materials, and systems. Educational organizations interested in setting up such programs would be wise to draw as much as possible from systems and materials already in place in other institutions. Shaping existing programs to suit individual settings is much easier than trying to start from scratch.

The primary benefit of this type of effort—beyond its service to adults or the business sector—is that it is an excellent catalyst to further, long-term collaborative efforts between colleges and businesses. Our experience proves this overwhelmingly true. The active, mutually respectful nature of these evaluations provides a base of understanding and cooperation for continued solid relationships.

Faculty seem both intimidated and excited by the process. Awarding credit for noncollegiate instruction, like APL, is often threatening to faculty at first. We have found it critical to spend time at the outset of all evaluations discussing the purpose of the program and the nature of adult and experiential learning. Also, evaluating experiential learning for college equivalency is a very difficult task, requiring some degree of skill and experience. Some training of faculty in advance would help. Having experienced assessors from our APL program is invaluable. They are able to alleviate concerns over the nature and validity of prior learning assessment as well as guide new faculty through the evaluation process itself.

The process, though, is also an excellent source of professional development and of network opportunities for faculty from various institutions. They clearly appreciate the opportunity to connect with the employment sector, as well. The evaluations provide an excellent eye-opener for faculty to the quality and level of professional training.

For employers participating in ETES, the outside perspective gained by evaluation is very beneficial in increasing the effectiveness and sophistication of their training. Particularly in program organization, systemization, and pedagogical areas, professional faculty provide excellent insight and advice.

As we theorized at the outset, a practical, mutually respectful initial collaboration between industry and education is the most efficacious path to lasting relationships. The ETES project has proven a successful demonstration of that theory.

COLLEGE-BUSINESS PARTNERSHIPS: A CASE STUDY APPROACH TO SUCCESSFUL PARTNERSHIPS

Joan Schwartz/

What are the components of a successful college-business partnership?

To find out, we are looking at a variety of programs at institutions offering associate, baccalaureate and graduate degree programs. We want to learn not only why the program is successful, but also how it evolvs, what problems administrators encounter in setting it up, what benefits accrue to the partners, and what recommendations administrators would make to other colleges interested in creating similar programs.

So far, the following institutions and businesses have been interviewed and assessed: Spartanburg Technical College/Westinghouse, Central Michigan University/Chyrsler Corporation, University of Maryland/Fairchild Industries, Edinboro University/American Sterilizer Company, University of Pennsylvania/SIGNA Corporation and the University of Massachussetts/State Department of Social Services.

In the partnerships we examined there was no definitive pattern as to which organization approached the other. In some cases, such as the Westinghouse/Spartansburg Technical College/Westmoreland County Community College partnership, the company was looking for an institution(s) willing to create a very special program for a unique group of employees. In other cases, such as the Signa/University of Pennsylvania partnership, the school actively sought out the company because it saw the partnership as a way to implement its main mission of extending educational opportunity to those who would otherwise not be able to obtain a college education.

Based on our survey results, the following are features of a successful college-business partnership —

Securing top-level commitment

From the start, most partnerships recognized that good communication and high-level institutional support would be essential to the success of the partnership. The Fairchild Industries/University of Maryland graduate-level engineering partnership was forged by the CEO and the President of the University; the Westinghouse agreement had the presidents and high level administrative staff of both the community colleges and the corporation involved in the planning

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discussions. One college president notes that his participation gave a strong signal to the faculty and the corporation: it was an important project.

Faculty motivation and partcipation

One of the major concerns for planners was eliciting the support and interest of faculty. In the Westinghouse partnership the two institutions approached only those faculty that had expressed an interest in participating or had previous experience in a non-traditional situation. These instructors served as "master aids" to new program faculty. Doubting faculty have been won over by the quality of the Westinghouse students and the commitment of the company to support the program's requirements.

In those institutions where faculty were part of a continuing education school or general studies program, and were dealing with an adult student population, the concern never surfaced. The faculty are supportive and, in the case of the Signa partnership in Pennsyivania, "are thrilled to go on-site to teach the course". The one major faculty concern that surfaced, and that was only at one institution where faculty are required to spend a third of their time (over a three semester period) acting as liaison with the business organization, was how their participation in the program was going to fit in with tenure track requirements and review.

Setting the Ground Rules

Some of the business organizations make it clear from the outset that promotion rests on earning a degree. Westinghouse makes it very clear that they will not seek any special favors from the college for employees when they fail to adequately complete their coursework. In other words, the quality of the program is not compromised. Student employees who do not take the program seriously quickly drop out. One institution indicated there was a problem early on in the partnership concerning who was in control of the classroom—a controversial statement by a faculty member triggered company response to classroom content. It was made very clear to the company that they could not censor or control classroom discussion.

Customizing the Curriculum

Many of the colleges and universities based the curriculum for the company participants upon already existing programs of study and integrated the students into courses already offered. In many of the programs acceptance of non-traditional learning was part of the degree program. For example, Westmoreland and Spartanburg accepted credit recommendations offered by the American Council on Education's Program on Noncollegiate Sponsored Instruction. To accommodate some company's employee schedules, the exisiting courses were rewritten to become correspondence courses. They were modularized, incorporating written materials, videotapes, individualized one-on-one instruction via telephone and office appointments.

Reaping the Benefits

All partners agree that the benefits of their program are well worth the effort of developing them. Some of the companies promote a good neighbor policy with reciprocal arrangements for faculty and staff use, a sharing of resources and tours of their respective facilities. Often times the partnership agreement triggers other employees interest in returning to college to complete their baccalaureate degree, or to obtain an advanced degree. For example, some Westinghouse management staff, recognizing their need for further education, have enrolled in a Master's degree program at the local college.

The success of the partnership agreement rests on a solid foundation of hard work and ongoing communication with a strong commitment from all staff. Designing a partnership for only monetary gain with no strong commitment to a larger goal will only lead to a mediocre program with little chance of success.

From all parties, certain factors are critical for success:

From the institution: a commitment from the president, early involvement of all participants, and flexible administrative procedures.

From the Company: a commitment to the program, sponsoring institutions and enrolled employees.

From the students: strong commitment to completing courses and the degree.

When all these factors come together, all partners benefit and the community has a better educated and employable work force.

BUILDING A CORPORATE GRADUATE DEGREE PROGRAM:

A CASE STUDY

ROBERT L. SELBY

I. BACKGROUND

Marylhurst College is a small non-traditional liberal arts type of college serving a primarily adult student body. Although it has nurtured a growing Business and Management Department, until last year Marylhurst was known mostly for its individualized studies programs and for its fine departments of Music and Art. It came as a surprise, then, to many in the Portland area when a brochure was circulated describing two parallel graduate programs offered by Marylhurst College and the University of Oregon to be conducted on the premises and with the support of Tektronix, Inc. This paper outlines the developmental process which culminated in this college/industry joint venture.

Marylhurst initiated an M.S. in Management degree in 1984 and the College received accreditation as a graduate level institution in early 1986. Marylhurst decided to establish an M.S. in Management degree in order to have a business oriented curriculum that would provide generic management skills and which would be flexible enough, moreover, to allow persons from different industries to specialize according to their particular work demands.

Tektronix is Oregon's largest private sector employer. It is a company that has made an astounding commitment to education both by supporting a large in-house campus hosting classes offered by most of the educational institutions in the area, and through its substantial contributions to those institutions. As one of the world's largest producers of electronic instruments, Tektronix forms the nucleus of Oregon's expanding high tech industry. Given the nature of its product lines, Tektronix employs a high technology oriented work force, working in knowledge-based positions. Since its principle resource, then, is the collective knowledge of its employees, Tektronix views its investment in education as a necessary investment in the future. The Master's programs, developed between Marylhurst College, Tektronix and the University of Oregon reflect Tektronix' forecast of future manpower needs and its efforts to create the competencies projected to be required in the future through on-site education.

II. EVOLUTION OF AN IDEA

Several years ago the Data Processing Division of Tektronix recognized the need for educational programs at the undergraduate

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level which would contribute to its human resource pool. Having successfully developed and sustained a baccalaureate degree for three years, the Division Director, Mr. Steve Gray, desired to establish an in-house graduate program also. By November of 1985 his staff had produced an analysis of organizational skills that included professional support systems, institutional support systems, and physical support systems. (See Exhibit 1) This analysis revealed the need for managers who possessed the skills to "plan, direct, control, and innovate" across these areas of technical and professional expertise. As envisioned, an educational program should produce managers capable of two things: 1) to manage the integration of diverse technical skills to achieve coherent corporate objectives and 2) to apply state-of-the-art information processing technologies to the resolution of business related problems.

Of particular interest to this management team was the availability of hardware and software products which might be applied by managers to the operation of a company. On the other hand, they recognized that the people most familiar with these technologies were not managers but techical experts. Therefore, Tektronix wished to educate managers with traditional organizational competencies and also with a knowledge of how to apply state-of-the-art technologies to the management of the company.

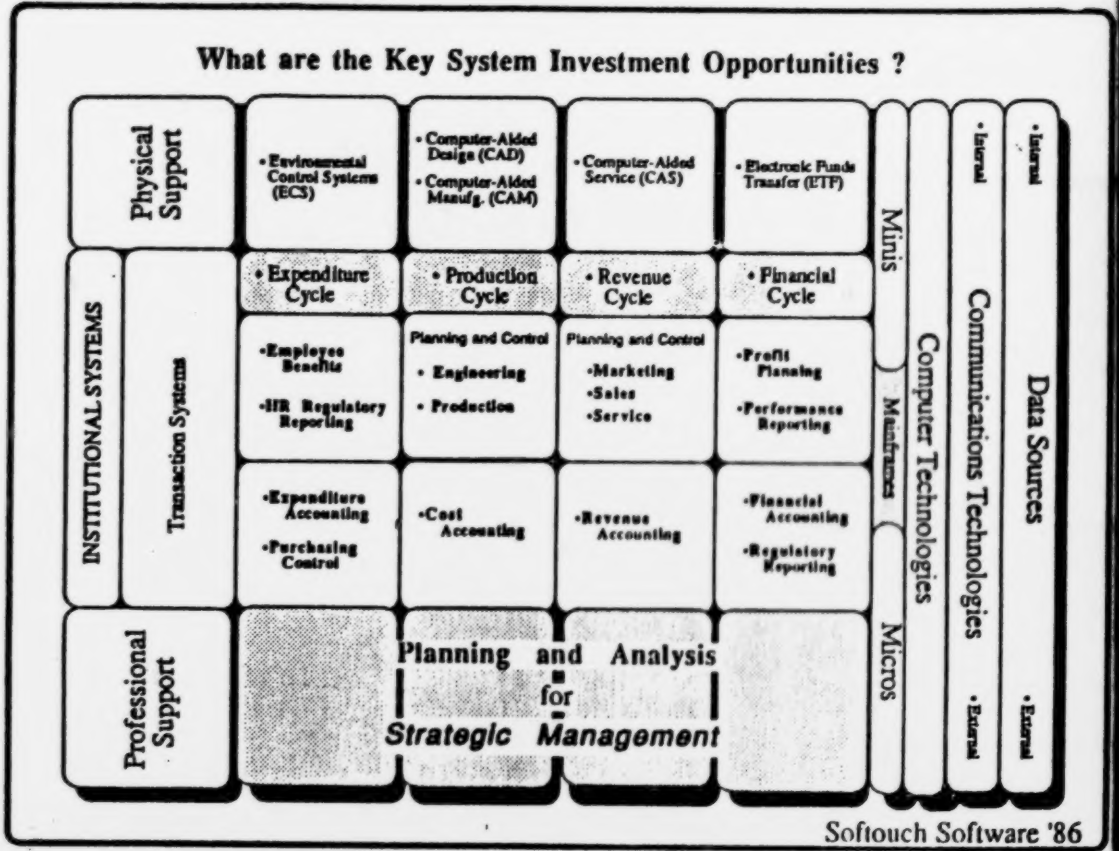
Having analyzed the complexity of the diverse knowledge bases residing in their organization, this management team began reviewing college catalogs from institutions around the Northwest in order to determine what courses could be matched with the intellectural needs of the company. This resulted in a smorgasbord curriculum (see exhibit 2) of courses which could conceivably be offered to Tektronix employees by colleges and universities in the area.

Given the fact that relevant coursework and expertise were identified from various schools, Tektronix conceived of a broker solution to coordinate these resources with their educational needs. The original plan called for a consortium of colleges and universities which could be assembled and brokered by some particular agency. Subsequently, Oregon educational agencies and institutions were courted for this role but none had the ability to respond within the timeframe desired by the Company. When Marylhurst was first approached by Tektronix, then, it was requested to become an educational broker, to employ professors from sister institutions to teach classes already available on their respective campuses, but now to be taught at the work site.

III. EVOLUTION OF A CURRICULUM: MATCHING CORPORATE AND ACADEMIC NEEDS

Tektronix's expectations, in short, then were that Marylhurst would provide leadership in organizing a consortial network which could deliver a smorgasbord of relevant classes

Business Advantage ______________________



What are the Key System Investment Opportunities ?

Physical Support		• Environmental Control Systems (ECS)	• Computer-Aided Design (CAD) • Computer-Aided Manufg. (CAM)	• Computer-Aided Service (CAS)	• Electronic Funds Transfer (ETF)
INSTITUTIONAL SYSTEMS	Transaction Systems	• Expenditure Cycle	• Production Cycle	• Revenue Cycle	• Financial Cycle
		•Employee Benefits •HR Regulatory Reporting	Planning and Control • Engineering • Production	Planning and Control •Marketing •Sales •Service	•Profit Planning •Performance Reporting
		•Expenditure Accounting •Purchasing Control	•Cost Accounting	•Revenue Accounting	•Financial Accounting •Regulatory Reporting
Professional Support		Planning and Analysis for *Strategic Management*			

Softouch Software '86

Exhibit 2

Applied Information Management Masters Program

PROPOSED CURRICULUM

BUSINESS FUNCTIONAL AREAS

MARKETING	
Marketing Management	3
Marketing Research	3
Advanced Analysis Consumer Behavior	3
Marketing Communications	3
Marketing Concepts and Theory	3
Marketing Problems and Policies	3
Theory/Research Marketing	6
Theory /Research Consumer Behavior	3
Problems in Industrial Marketing	3
Multinational Marketing Management	3

ECONOMICS/FINANCE/ACCOUNTING	
Advanced Financial Management	3
Investment Planning	3
International Finance	3
Managerial Economics	3
International Business	3
Small Business Management	3
Accounting and Finance	3
Advanced Managerial Accounting	3

MANUFACTURING	
MRP II Concepts	3
J.I.T. Concepts	3
Operations Research	3
CIM Concepts	3
Manufacture Sourcing	3
Multinational Mfg	3

GENERAL EDUCATION AREA

GENERAL	
Organizational Psychology	3
Compensation Theory and Admin	3
Group Processes in Organizations	3
Decision Making Processes	3
Labor Economics	3

MANAGEMENT	
Management Organizational Behavior	3
Quality of Working Life	3
Motivation and Work Behavior	3
Mgmt of Technological Organizations	3
Organizational and Management Theory	3
Organizational Decision Making	3
Problems in International Business	3
Organizational Design/Effectiveness	3
Strategic Business Planning/Analysis	3
Values and Decision Making	3
Technology, Tools for Problem Solving	3
Field Research Methods	3

INFORMATION TECHNOLOGY AREAS

TELECOMMUNICATIONS	
Telecommunications Management	3
Telecommunications Systems	3
Telecommunications Process Mgmt	3
Data Communications	3
Advanced Data Communications	3
TSM Integrations Seminar/Practicum	6

A.I. SYSTEMS	
Expert Systems	3
Knowledge Engineering	3
A.I. Concepts	3
A.I. Languages	3
A.I. Systems	6

SYSTEMS SCIENCE	
Systems Approach I, II, III	9
Technological Forecasting I, II	6
General Systems and Cybernetics I, II	6
Systems Planning and Management	3
Information Systems I, II, III	9
Futures Seminar	3

which students might assemble according to their work-related interests. Marylhurst initially responded positively to this proposal. Since Marylhurst, as a non-traditional college, depends heavily on adjunct faculty, including many who teach full-time at other institutions, the concept was not entirely outside the college's capability. On reflection, however, Marylhurst soon began to raise issues that became impediments to the Company's goals. The College did not desire to award a degree for coursework which was largely outside its control. A consortium was politically too time consuming. Finally, it insisted on some kind of curricular cohesion and structure that was not implied in the menu of classes that the Company wanted taught.

Both sides, therefore, felt stymied in their efforts and for over a month little progress was made. A break through occurred in February 1986 when a consultant from California Polytechnical Institute, and author of a leading textbook in data processing management, Dr. Thomas Athey, was employed by Marylhurst to intervene. Athey was invited to spend an entire morning with the management team at Tektronix in order to understand their expectations and then a faculty and administrative team from the College joined them for a luncheon meeting that extended through most of the afternoon. The charge given the consultant was to translate corporate goals into some curricular structure that the College could implement and manage.

It was apparent to the consultant that a curricular structure had to be imposed on the process even before the College's role as broker could be defined. It soon became apparent that this would necessitate a significant reduction in the kinds of classes the company wished included. In fact, because the corporate setting requires such a diversity of professional and technical expertise, it was difficult for the company to limit the menu without sacrificing its original objective. Consequently, little progress occurred in this meeting until the organizational role of the graduates of this program became better defined. That is, the Company achieved clarity on its goal to produce managers with some technical knowledge, not technicians, and this led to a more prolonged discussion regarding the relative depth and breadth of knowledge hoped for from this curriculum. Too much breadth would result in employees knowing a little about a lot of various areas of the organization but without sufficient competency in any one area, particularly that of management skills. Too much depth in any area, on the other hand, would limit people's ability to efficiently bridge organizational diversity.

When agreement was reached that the graduates were to be prepared to assume managerial roles, it was possible to conceptualize a management core consisting of required and elective classes. Similarly, it followed that the technical areas should be covered with sufficient depth to be useful and a technical core was finally decided upon which integrated four different areas: Information Systems, Telecommunications, Decision Support, and Systems Science. Agreement, therefore, was achieved on a general outline that involved substantial learning in the traditional areas of management and bridged across four areas of technical expertise with sufficient elective work that students could choose to either deepen their technical expertise in one of those four areas or diversify more broadly. The conclusion of this exhausting process was that the College's need to develop a cohesive Master's curriculum was met and the company had a program that would prepare managers with a reasonable breadth of technical knowledge.

The consultant subsequently drafted a curriculum which he thought would meet everyone's criteria. However, by the time it arrived, Larry Bunyard on the Tektronix team had already graphically translated the results of the meeting into a curriculum outline that found whole-hearted support by Marylhurst (see exhibit 3)

IV. THE UNIVERSITY CONNECTION

Once the curriculum structure was reasonably well-conceptualized, the Company and Marylhurst turned to the problem of sourcing. Marylhurst admittedly lacked expertise in several areas, although its undergraduate Telecommunications Management Program lent credibility for developing the Telecommunications component. Marylhurst also offered many of the Management courses in its existing curriculum. Other schools were contacted for participation in the project once again but by now the pieces which any one institution could contribute were small enough that other schools were less than enthusiastic about being included. Marylhurst for its part still struggled with its role as broker and the lack of curricular ownership implied by that role.

Meanwhile, the University of Oregon was originally one of the institutions feeling that it could not field an entire Master's Program off-campus, but one which expressed interest in being a source of courses. It turned out, however, that the University viewed the venture much the same way as Marylhurst and decided in the end that it would prefer to offer an entire degree program rather than contribute piecemeal to someone else's project. Consequently, the Company was confronted with two somewhat similar and potentially competing programs. For the moment, it appeared that the Company was faced with a dilemma and that Marylhurst was in the position of David confronting the State's educational Goliath.

Instead of conflict, however, the arrival of the University contributed to the solution. Early on, Tektronix urged Marylhurst to create certificates within its curriculum which could either be earned independent of a degree or represent a motivational milepost in one's pursuit of a degree. With the emergence of the University's program it became readily apparent that the students, the Company, and the schools could all enjoy the best of all worlds by agreeing to block transfers of credit represented by these certificates.

Exhibit 3

APPLIED INFORMATION MANAGEMENT MASTERS PROGRAM AND CERTIFICATE PROGRAM

BUSINESS FUNCTIONS:

BUSINESS CORE (15 Hours)	BUSINESS ELECTIVES (9 Hours)
(3) Financial Management Concepts	(3) International Finance Concepts (3) International Business Practices
(3) Marketing Concepts & Practices	(3) Marketing Management (3) Business Planning
(3) General Management Theory	(3) Program Management (3) Organizational Politics
(3) Managerial Economics	(3) Managerial Accounting
(3) Manufacturing Concepts & Practices	(3) Operations Research (3) Technical Functions Management

INFORMATION TECHNOLOGY:

TECHNICAL CORE (18 Hours)

INFORMATION SYSTEMS	TELECOMMUNICATIONS	DECISION-SUPPORT	SYSTEM SCIENCE
(3) Business Systems Planning (3) Systems Analysis & Design	(3) Telecommunications Management (3) Telecommunications Systems	(3) Professional Support Systems (3) Decision Analysis Methods	

TECHNICAL ELECTIVES (9 Hours)

INFORMATION SYSTEMS	TELECOMMUNICATIONS	DECISION-SUPPORT	SYSTEM SCIENCE
(3) Data Processing Management (3) Systems Development and Implementation (3) Data Structures & Data Base Management Concepts	(3) Telecommunications Mgmt. (3) Network Design Concepts (3) Communication Services (Data, Voice, Video, Image)	(3) AI Concepts (3) AI Languages (3) Expert Systems Development	(3) Technological Forecasting (3) Systems Approach (3) Cybernetics

CERTIFICATE AREAS

What followed, then, was the creation of two separate Master's programs, both supported in one form or another by the Corporation, each of them enjoying a high degree of internal coherence and cohesiveness but with interchangeable modules. The University of Oregon students, for example, may complete the coursework required for a Certificate in Telecommunications and transfer that as a block into their program, or Marylhurst students can similarly complete a Certificate in Computer Graphics from the University and count it toward completion of a Marylhurst degree. The menu of diverse subjects first dreamed of by Tektronix approached reality, as did the schools' need for curricular integrity.

As a result of the cooperation between the two schools and the support of Tektronix, a total of 83 people began taking course work autumn quarter 1986. While there has been the expected attrition, approximately 35 students are in the process of being admitted into the Marylhurst program. Moreover, about one-third of the students applying for admission to the University of Oregon are enrolled in Marylhurst classes. Of these students, about one-half are Tektronix employees and the other half come from diverse corporate backgrounds such as banking, insurance, and other high tech firms.

V. OBSERVATIONS AND CONCLUSIONS

A. Educating for the Future

A lot has been written and debated in recent years regarding academic and private industry joint ventures. Based on Marylhurst's experience, the benefits far exceed the risks. Specifically, the benefits include:

1. The challenge of forecasting future job designs,
2. The challenge of creating competency-based education,
3. The feedback loop which assures quality control.

The awesome task which confronted the team of industrialists and educators who worked on this project was that of trying to predict the job skills which will be required of future high tech managers. An example represented in our curriculum is the anticipation that Data Processing and Telecommunications, which currently form two departments in most companies, will merge into a single department as data processing becomes increasingly dependent on the architecture of communication networks to connect geographically remote data bases. Academia may be able to forecast emerging technologies, but without corporate dialogue it is not well equipped to anticipate how these technologies will be integrated into future job design. Because of Marylhurst's partnership with industry, we believe that we are preparing people for future employment opportunities.

Because this partnership developed with the shared objective of preparing people to manage in high tech industries, there was an implicit desire on everyone's part to identify job related competencies within the curriculum. Consequently, Tektronix prepared an outline of skills which it anticipated would be covered within each class (see exhibit 4). Moreover, a "learning continuum" was suggested by the Director of Corporate Education which enabled the company and the college to determine not only the topics to be covered in but the level of competency which one should attain on each. Without this active participation of the industrial partner, there could be no similar degree of confidence that the knowledge bases useful to industry would be found in our curriculum. Furthermore, in order to maintain this level of confidence company and college representatives meet to scrutinize each syllabus before the commencement of the following term. It is not expected that the college will agree with the company on the content of any particular course, but the college makes an effort to assure that the skills sought by the company are found somewhere in the curriculum. Syllabi are then compared against these expectations.

Similarly, the partnership results in a feedback loop which contributes significantly to improving the program. The company and the college each conduct their independent evaluations of the instructors and their courses. These data are shared at joint meetings during which the college is informed of any shortcomings. An on-site coordinator, funded by the company, maintains close contact with the students and whenever courses fail to meet student expectations, the Coordinator contacts students to gain an accurate impression of the problem. As a result of this feedback loop the college postponed one class it intended to offer until its content could be reviewed and suitably revised. While all schools, of course, include evaluative measures, there are few instances when outcomes are as well defined and evaluation so carefully coordinated with those outcomes as in this program. Feedback is frequently immediate and both the company and the college are prepared to take action when necessary.

In short, while there is much reasoned concern expressed about the intrusion of private industry into the arena of academic freedom, in this case that intervention is welcomed as a mutual commitment to quality control. Having once achieved clarity regarding the organizational role the graduates of this program will play, and the form their preparation should take, the continued active involvement of Tektronix lends confidence to the college, the students, and other employers that this program will succeed in meeting its objectives.

B. IDENTIFYING THE REAL NEED

The author wishes to make a final statement regarding the efforts of educational institutions to "meet the needs" of their clients. There is a great deal of confusion between "need assessments" and "interest assessments." Frequently, colleges circulate lists of subjects or course titles in an effort to elicit people's responses to them. All too often these are called "needs assessments;" but in fact all that has been gained is some sense of what people might be interested in if no conditions are imposed on them.

I submit that an educational needs assessment involves identifying a problem which has an educational solution. Moreover, if there truly is a defined need, then the cost of providing a solution will be perceived as an investment. The key to obtaining financial support for education lies in the value added as perceived by management.

Education in many organizations is considered a benefit offered to employees and is, therefore, administered through a human resource or personnel office. While I applaud companies which offer such educational benefits, one should not confuse a benefit package with an assessment of need.

Practitioners of non-traditional education should, therefore, be adept at understanding how organizations function and what education can do to improve operations. Only then will education be perceived as investment in the corporate future and not just a perk for the individual employee. I hope that this description of an evolving corporate/academic partnership illustrates what even a small college can do in this regard.

Acknowledgments

The author wishes to thank Steve Gray, President, Softouch Software, Larry Bunyard, Systems Development Manager, Tektronix, and Dr. Don Springer, Associate Professor of MIS, University of Portland, for the use of graphics from their article, and for their support and cooperation.

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SERVING CORPORATE EDUCATIONAL NEEDS THROUGH PARTNERSHIP MODELS

Hugh Thompson

HIGH TECHNOLOGICAL CHANGES ARE AFFECTING GREATLY THE WORLD'S ECONOMY. THE FOUNDATION OF THE FUTURE IS NEW TECHNOLOGY; THEREFORE, THE FUTURE WILL BE DEPENDENT UPON THE EDUCATED AND OUR INVESTMENTS IN THE HUMAN INTELLECT. THE ADVANCEMENT OF SCIENCE FROM WHICH NEW TECHNOLOGIES EMERGE AND THE SKILLED ENGINEERS AND TECHNOLOGISTS ON WHICH OUR CONTEMPORARY SOCIETY RESTS ARE DEPENDENT UPON COLLEGES AND UNIVERSITIES.

INDIANA UNIVERSITY HAS TRADITIONALLY OFFERED PROGRAMS IN THE LIBERAL ARTS AND SELECTED PROFESSIONAL FIELDS WHILE PURDUE IS THE LAND-GRANT INSTITUTION OFFERING PROGRAMS IN AGRICULTURE, ENGINEERING, AND TECHNOLOGY. INDIANA UNIVERSITY AND PURDUE UNIVERSITY HAVE DEVELOPED A COOPERATIVE ARRANGEMENT TO DELIVER ACADEMIC PROGRAMS IN TECHNOLOGY TO THE RESIDENTS OF THE STATE OF INDIANA. OF THE EIGHT CAMPUSES OF INDIANA UNIVERSITY, EAST, SOUTHEAST, AND KOKOMO HAVE A GUEST/HOST AGREEMENT WITH PURDUE. FOR INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS, INDIANA UNIVERSITY IS THE FISCAL AGENT FOR ALL PROGRAMS, AND FOR INDIANA UNIVERSITY-PURDUE UNIVERSITY AT FORT WAYNE, PURDUE UNIVERSITY IS THE FINANCIAL CONDUIT. EACH OF THESE ARRANGEMENTS ARE ADMINISTERED DIFFERENTLY. RECENTLY, PURDUE WAS AUTHORIZED TO IMPLEMENT A STATEWIDE SYSTEM OF TECHNOLOGY WHICH WOULD PERMIT BOTH PUBLIC AND INDEPENDENT COLLEGES AND UNIVERSITIES THROUGHOUT THE STATE TO SERVE AS BROKERS FOR OR DELIVERERS OF TECHNICAL PROGRAMS.

THE MISSION OF THE SCHOOL OF TECHNOLOGY AT PURDUE IS TO PROVIDE CAREER EDUCATIONAL OPPORTUNITIES TO STUDENTS WHOSE TECHNOLOGICAL INTERESTS AND APTITUDES ARE ESSENTIALLY APPLICATION-ORIENTED. THE SCHOOL IS ALSO INVOLVED IN RELATED APPLIED RESEARCH AND SERVICE ACTIVITIES. THE GOAL IS TO PRODUCE COLLEGE GRADUATES WITH SALABLE SKILLS WHO ARE OCCUPATIONALLY READY AND HAVE THE POTENTIAL FOR GROWTH TO MEET DEFINED TECHNICAL MANPOWER NEEDS, PRIMARILY FOR INDIANA BUSINESS, INDUSTRIAL, AND SERVICE AGENCIES. ASSOCIATE AND BACHELOR'S DEGREES ARE OFFERED IN THE FOLLOWING AREAS; AVIATION TECHNOLOGY, COMPUTER TECHNOLOGY, CONSTRUCTION, ELECTRICAL ENGINEERING TECHNOLOGY, MECHANICAL ENGINEERING TECHNOLOGY, SUPERVISION, AND COMPUTER INTEGRATED MANUFACTURING.

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INDIANA AND REGIONAL MANPOWER NEEDS, OCCUPATIONAL OPPORTUNITIES AND QUALIFICATIONS, EDUCATIONAL REQUIREMENTS, AND STUDENT INTERESTS ARE CONTINUOUSLY SURVEYED BY THE SCHOOL'S OFFICE OF MANPOWER STUDIES. CLOSE LIAISON WITH EMPLOYERS AND GRADUATES PROVIDES FEEDBACK INFORMATION TO EVALUATE AND UPDATE PROGRAMS. NEW PROGRAMS ARE CONSIDERED PRIMARILY ON THE BASIS OF FUTURE CAREER OPPORTUNITIES, EMPLOYERS' NEEDS, STUDENT INTEREST, EMPLOYMENT SUCCESS AND CAREER PROGRESS OF GRADUATES, AND THE AVAILABILITY OF RESOURCES.

THE SCHOOL OF TECHNOLOGY HAS ALSO ESTABLISHED ADVISORY COMMITTEES AT EACH OF THE SITES THROUGHOUT THE STATE WHERE PROGRAMS IN TECHNOLOGY ARE OFFERED. EACH INDIANA UNIVERSITY CAMPUS HAS COMMITTEES OF BUSINESS, INDUSTRIAL, AND CIVIC LEADERS WHO SERVE AS A BRIDGE TO THE EXTERNAL PUBLIC AND HELP ASSURE THE QUALITY AND SUCCESS OF THE PROGRAMS IN TECHNOLOGY. BASICALLY, THE COMMITTEES ADVISE THE FACULTY AND ADMINISTRATION ON MATTERS AS FOLLOWS:

1) TO PROVIDE CONSULTATION CONCERNING DESIGNATED ADMINISTRATIVE PROBLEMS WHICH ARE OF GLOBAL SIGNIFICANCE TO THE INSTITUTION.

2) TO SERVE IN AN ADVISORY CAPACITY ON CURRICULAR PROGRAM DESIGN AND DIRECTIONS; I.E., ON MATTERS RELATED TO: A) NEED AND REQUIREMENTS FOR NEW DEGREE PROGRAMS AND PROGRAMMATIC OPTIONS, AND B) THE MAINTENANCE, IMPROVEMENT, AND ACCREDITATION OF EXISTING PROGRAMS.

3) TO IDENTIFY ATTRIBUTES AND CHARACTERISTICS NEEDED BY GRADUATES TO PERFORM SATISFACTORILY IN THE WORLD OF BUSINESS AND INDUSTRY, SOCIAL ORGANIZATIONS, AND HEALTH AGENCIES, AND TO ASSIST IN THE PLACEMENT OF GRADUATES.

4) TO ASSIST IN DEVELOPING POTENTIAL FIELD, CLINICAL, OR COOPERATIVE EDUCATION PROGRAMS; I.E., PROVIDE OR ASSIST IN DEVELOPING SITES FOR STUDENTS.

5) TO EVALUATE PERFORMANCE OF INTERNS OR GRADUATES AND RECOMMEND SUGGESTED CHANGES IN THE PROGRAMS AS A RESULT OF THIS EVALUATIVE PROCESS.

6) TO ESTABLISH A COMMUNICATION LINKAGE WITH THE COMMUNITY AND TO AID IN THE OVERALL PUBLIC RELATIONS EFFORT.

7) TO RECOMMEND EQUIPMENT SELECTION AND LABORATORY DESIGN OR TO PROVIDE ACCESS TO SPECIALIZED LABORATORIES AND EQUIPMENT NOT NORMALLY FOUND ON CAMPUS.

8) TO CREATE A GREATER AWARENESS AND VISIBILITY OF THE COLLEGE IN THE COMMUNITY, STATE, AND NATION.

9) TO PROVIDE IN-SERVICE PROGRAMS FOR FACULTY AND STAFF.

10) TO DESIGNATE CRITERIA FOR SELECTION OF STUDENTS, AND TO ASSIST IN IDENTIFYING STUDENT MARKETS AND IN RECRUITING STUDENTS.

11) TO BRING CREDIBILITY TO INSTITUTIONAL PROGRAMS AND TO PROVIDE CONSULTANTS, PART-TIME FACULTY AND STAFF, AND GUEST SPEAKERS.

12) TO ASSIST IN THE BROADENING OF THE COLLEGE'S FINANCIAL BASE AND TO PROVIDE SCHOLARSHIPS AND AWARDS FOR OUTSTANDING STUDENTS.

13) TO AID IN THE RECRUITMENT OF FACULTY. IN SOME CASES, JOINT APPOINTEES MIGHT BE MADE BETWEEN BUSINESSES, AGENCIES, OR ORGANIZATIONS AND INSTITUTIONS OF HIGHER EDUCATION.

14) TO ASSIST IN THE DEVELOPMENT OF SHORT-TERM AND LONG-RANGE PLANS.

15) TO SERVE AS A RESERVOIR OF TALENT FROM WHICH TO DRAW FUTURE TRUSTEES.

THE FOLLOWING THREE TYPES OF ADVISORY COMMITTEES ARE QUITE COMMONLY USED BY EACH OF THE RESPECTIVE CAMPUSES:

A. GENERAL ADVISORY BOARD - (INSTITUTIONAL)

THE GENERAL ADVISORY BOARD IS APPOINTED TO ADVISE THE FACULTY AND ADMINISTRATION ABOUT THE MAINTENANCE, EXTENSION, AND IMPROVEMENT OF THE TOTAL EDUCATIONAL AND ADMINISTRATIVE PROCESS. THE PRIMARY FUNCTION IS TO ASSIST THE UNIVERSITY IN RESPONDING MOST EFFECTIVELY TO THE EDUCATIONAL NEEDS OF THE VARIOUS SERVICE AREAS OF THE COLLEGE. IN FULFILLING THESE RESPONSIBILITIES, THE BOARD MEMBERS HELP TO MAINTAIN QUALITY ACADEMIC PROGRAMS AND TO HELP INSURE SUPPORT BY THE COMMUNITY. THE BOARD MEMBERS INTERPRET THE NEEDS OF BUSINESS AND INDUSTRY, SOCIAL ORGANIZATIONS, AND HEALTH AGENCIES; UNDERSTAND THE OBJECTIVES OF POSTSECONDARY EDUCATION; AND GIVE OF THEIR TIME WHEN CALLED UPON TO PERFORM COMMITTEE ASSIGNMENTS.

B. PROGRAM ADVISORY BOARD - (SPECIFIC PROGRAMS)

THE PROGRAM ADVISORY BOARD OR COMMITTEE WORKS AT THE INDIVIDUAL PROGRAM LEVEL, AND IT IS CONCERNED WITH MATTERS SUCH AS CURRICULAR CONTENT, EQUIPMENT, FACILITIES, AND PLACEMENT OF GRADUATES. MEMBERS REPRESENT EACH CURRICULAR AREA OF CONCENTRATION IN THE PROGRAM. MEMBERS OF THE PROGRAM ADVISORY BOARDS HAVE RECENT, SUCCESSFUL, PRACTICAL EXPERIENCE IN THE AREA SERVED BY THE PROGRAM OR IS VERY KNOWLEDGEABLE ABOUT THE PROGRAM.

C. AD HOC ADVISORY BOARDS OR COMMITTEES - (SPECIAL OR TEMPORARY)

AD HOC ADVISORY BOARDS OR COMMITTEES ARE GENERALLY OF A SHORT-TERM NATURE. THEY ARE APPOINTED AND ORGANIZED FOR A SPECIFIC PURPOSE, SUCH AS PRE-OPERATIONAL PROGRAM PLANNING, ANY SPECIAL PROBLEM THAT MAY ARISE DURING THE DEVELOPMENTOR OPERATION OF A PROGRAM, OR TO DEAL WITH SPECIFIC ADMINISTRATIVE ISSUES OR CONCERNS. FOLLOWING THE COMPLETION

OF THE SPECIFIC ASSIGNMENT, THE AD HOC BOARD OR COMMITTEE IS TERMINATED. HOWEVER, MEMBERS MAY BE FURTHER UTILIZED AS MEMBERS OF ONGOING FORMAL ADVISORY COMMITTEES.

A CONSORTIUM EFFORT

INDIANA UNIVERSITY AT KOKOMO, ALSO, HAS FORMED A CONSORTIUM WITH INDIANA VOCATIONAL TECHNICAL INSTITUTE AND THE LOCAL SCHOOL CORPORATIONS WITHIN THE AREA. ONE ACTIVITY OF THE CONSORTIUM IS TO ASSESS THE EDUCATIONAL NEEDS OF HIGH TECHNOLOGY INDUSTRIES IN NORTH CENTRAL INDIANA. REPRESENTATIVES OF THE CONSORTIUM MEET REGULARLY WITH KEY PERSONS FROM LARGE AND SMALL "HIGH TECH" COMPANIES. A DETERMINATION WAS MADE ABOUT THE ACADEMIC PROGRAMS CURRENTLY BEING OFFERED BY THE EDUCATIONAL INSTITUTIONS. ADDITIONALLY, THE COMPANIES HAVE ASSESSED THEIR OWN PRESENT AND FUTURE EDUCATIONAL NEEDS, AND THESE NEEDS ARE BEING TRANSLATED INTO EDUCATIONAL IMPLICATIONS FOR THE ACADEMIC INSTITUTIONS.

NEW ACADEMIC PROGRAMS ARE BEING PLANNED; COOPERATIVE ACTIVITIES HAVE BEEN INITIATED; AND INDUSTRIAL LINKAGES ARE BEING FORMED... CONSULTING BETWEEN FACULTY MEMBERS AND INDUSTRIAL REPRESENTATIVES, JOINT APPOINTEES, PROVIDING PART-TIME FACULTY MEMBERS, JOINTLY SHARED FACILITIES, PERSONNEL EXCHANGE, IN-PLANT COURSES, JOINTLY SPONSORED NON-CREDIT PROGRAMS, PROVIDING EMPLOYMENT FOR FULL-TIME FACULTY DURING SUMMER MONTHS, ETC.

ALL MANPOWER STUDIES FOR NEW PROGRAMS ARE DONE IN CONCERT WITH THE ADVISORY COMMITTEES, PURDUE UNIVERSITY, AND THE CONSORTIUM. A TYPICAL STUDY DETERMINES THE AVAILABILITY OF SUFFICIENT NUMBERS OF QUALIFIED STUDENTS AND THE NEED FOR TECHNOLOGISTS WITHIN THE FIELD BEING SURVEYED. THE COMMITTEES HELP VALIDATE OR VERIFY THE RESULTS OF THE STUDY AS IT MOVES FROM ONE STAGE TO THE NEXT. THE COMMITTEES ARE INSTRUMENTAL IN SHAPING THE PROPOSALS AS THEY PROGRESS THROUGH THE VARIOUS STEPS REQUIRED FOR APPROVAL AND ULTIMATE FUNDING BY THE GENERAL ASSEMBLY.

GUEST/HOST AGREEMENT

FACULTY

THE "HOST" INSTITUTION IS INDIANA UNIVERSITY, AND PURDUE IS THE "GUEST." THE FULL-TIME "GUEST" STAFF MEMBERS ARE REGULAR EMPLOYEES OF THE "GUEST" INSTITUTION. THESE STAFF MEMBERS RECEIVE THEIR FRINGE BENEFITS AND ARE COVERED BY THE FISCAL POLICIES AND PROCEDURES OF THE "GUEST" INSTITUTION. THIS INCLUDES TIAA, INSURANCE, UNEMPLOYMENT AND WORKMEN'S COMPENSATION, LONG-TERM DISABILITY, VACATION, SICK LEAVE, PROMOTIONAL INCREASES, SABBATICALS, RETIREMENT, AND OTHER BENEFITS. UPON CONSULTATION WITH THE CHANCELLOR OF THE "HOST" INSTITUTION, TENURE MAY BE ACQUIRED WITH PURDUE UNIVERSITY UNDER THE POLICIES AND PROCEDURES WHICH SPECIFY THAT "TENURE IS EFFECTIVE ONLY AT THE PARTICULAR CAMPUS OF THE UNIVERSITY WHERE IT IS ACQUIRED."

SALARIES ARE ESTABLISHED JOINTLY BY THE "HOST" AND "GUEST" INSTITUTIONS AT A LEVEL NECESSARY TO EMPLOY OR RETAIN QUALIFIED FACULTY MEMBERS. THE "GUEST" INSTITUTION IS REIMBURSED BY THE "HOST" INSTITUTION FOR 100% OF THE SALARIES OF THE "GUEST" STAFF MEMBERS, PLUS ALL OF THE COSTS RELATED TO COMPENSATION.

PART-TIME FACULTY (AS DEFINED BY THE "HOST" INSTITUTION) TEACHING "GUEST" COURSES ARE PAID DIRECTLY BY THE "HOST" INSTITUTION. THE ADJUNCTS ARE CONSIDERED "HOST" INSTITUTION FACULTY MEMBERS AND COVERED BY THE "HOST" INSTITUTION'S BENEFITS AND POLICIES. THE DIRECTOR OF THE DIVISION OF PURDUE TECHNOLOGY REPORTS TO THE DEAN OF THE SCHOOL OF TECHNOLOGY AT WEST LAFAYETTE.

OPERATING RESPONSIBILITY

OPERATING RESPONSIBILITY FOR "GUEST" PROGRAMS OR COURSES REST WITH THE "HOST" UNIT AND WITH THE FOLLOWING UNDERSTANDING:

A. SPECIFIC APPROVAL FOR THE OFFERING OF INDIVIDUAL "GUEST" COURSES AND PROGRAMS IS SECURED IN WRITING BY THE "HOST" UNIT FROM THE SCHOOL OF TECHNOLOGY OF THE PARENT INSTITUTION.

   1) APPROVAL OF FACILITIES AND EQUIPMENT.

   2) APPROVAL OF TEXTS AND INSTRUCTIONAL MATERIALS, INCLUDING LIBRARY MATERIALS.

   3) APPROVAL OF STAFF (USING FORMS AND PROCEDURES SPECIFIED BY THE PARENT INSTITUTION).

B. STUDENTS ARE ADMITTED TO "GUEST" PROGRAMS OR COURSES BY THE "HOST" UNIT UNDER ADMISSION REQUIREMENTS AND POLICIES CONSISTENT WITH THOSE IN EFFECT FOR THE SAME PROGRAMS OR COURSES AT THE PARENT INSTITUTION. THE SUPERVISION OF ADMISSIONS TO "GUEST" PROGRAMS OR COURSES ARE THE RESPONSIBILITY OF THE ADMISSIONS OFFICER OF THE PARENT INSTITUTION. THE ADMISSIONS OFFICER OF THE PARENT INSTITUTIONS HAVE DEVELOPED WORKABLE ADMISSIONS PROCEDURES TO COVER ANY SPECIAL CONDITIONS OR PROBLEMS RESULTING FROM "GUEST" PROGRAM OR COURSE OPERATION.

C. REGISTRATION PROCEDURES AND POLICIES FOR STUDENTS IN "GUEST" PROGRAMS OR COURSES HAVE BEEN DEVELOPED BY THE REGISTRATION OFFICERS OF THE TWO PARENT INSTITUTIONS. ACADEMIC CREDIT FOR ALL "GUEST" COURSES OR PROGRAMS ARE RECORDED ONLY BY THE "HOST" INSTITUTION.

STUDENT FEES

THE "HOST" INSTITUTION USING ITS FEE SCHEDULE COLLECTS AND RETAINS ALL FEES OF STUDENTS ENROLLED IN THE "GUEST" INSTITUTION'S COURSES AND PROGRAMS. HOWEVER, THE GRADUATION FEE IS COLLECTED BY THE "GUEST" INSTITUTION.

THE "HOST" INSTITUTION IS CREDITED WITH THE ENROLLMENT COUNT WHICH RESULTS FROM OFFERING THE "GUEST" INSTITUTION'S COURSES AND PROGRAMS, AND THE "HOST" INSTITUTION INCLUDES THIS INFORMATION IN ITS FUND REQUEST TO THE GENERAL ASSEMBLY.

CAPITAL EQUIPMENT AND SUPPLY AND EXPENSE COSTS

ANY AND ALL COSTS RELATIVE TO THE PURCHASE, MAINTENANCE, AND REPLACEMENT OF EQUIPMENT SPECIFIED FOR THE LABORATORIES BY THE "GUEST" INSTITUTION IS BORNE BY THE "HOST" INSTITUTION. SUPPLIES, INSTRUCTIONAL AND LIBRARY MATERIALS, AND "GUEST" FACULTY TRAVEL COSTS ARE PAID BY THE "HOST" INSTITUTION. THE "HOST" INSTITUTION PAYS FOR ADVERTISING, TRAVEL, AND INTERVIEW COSTS OF PROSPECTIVE "GUEST" INSTITUTIONAL STAFF. ALL PROGRAM ACCREDITATION EXPENSES ARE PAID BY THE "HOST" INSTITUTION.

ADMINISTRATIVE SERVICE COSTS

BECAUSE THE "HOST" INSTITUTION RECEIVES THE FEE INCOME AND STATE APPROPRIATIONS FOR THE ENROLLED "GUEST" STUDENT, THE "HOST" INSTITUTION REIMBURSES THE "GUEST" INSTITUTION FOR THE ADMINISTRATIVE SERVICE COSTS NECESSARY TO PROVIDE THE ACADEMIC SUPERVISION FOR THE "GUEST/HOST" PROGRAMS. IN ADDITION TO THE REIMBURSEMENT FOR FULL-TIME "GUEST" STAFF MEMBERS, THE "HOST" INSTITUTION REIMBURSES THE "GUEST" INSTITUTION $3,000 FOR THE FIRST $40,000 NECESSARY TO COVER THE SALARIES FOR THE "GUEST" STAFF MEMBERS. ALSO, THE "HOST" INSTITUTION REIMBURSES THE "GUEST" INSTITUTION AT THE RATE OF 5% FOR SALARIES FOR "GUEST" STAFF MEMBERS ABOVE THE $40,000 BASE FIGURE.

PROCEDURE FOR PAYMENT

THE "GUEST" INSTITUTION BILLS THE "HOST" INSTITUTION FOR THE SALARIES, FRINGE BENEFITS, AND ANY OTHER FACULTY AND ADMINISTRATIVE SERVICE COSTS FOR EACH FISCAL YEAR (JULY 1-JUNE 30), NOT BEFORE JANUARY 1 AND NOT LATER THAN APRIL 30 OF EACH YEAR. THIS BILLING INCLUDES ACTUAL CHARGES FROM JUNE 1-DECEMBER 31 AND ESTIMATED CHARGES FROM JANUARY 1-JUNE 30. ADJUSTMENTS OF ANY DIFFERENCES AND ACTUAL COSTS ARE MADE THE FOLLOWING YEAR.

A REVIEW OF THE FISCAL AGREEMENT CAN BE INITIATED BY EITHER INSTITUTION WHEN DEEMED APPROPRIATE. THE AGREEMENT IS IN EFFECT FOR THREE YEAR PERIODS.

STATEWIDE SYSTEM OF TECHNOLOGY

PURDUE OFFERS TECHNOLOGICAL PROGRAMS AT EACH OF ITS CAMPUSES AND AT THREE INDIANA UNIVERSITY CAMPUSES UNDER THE "GUEST/HOST" ARRANGEMENT. VINCENNES UNIVERSITY, INDIANA STATE AT TERRE HAUTE AND EVANSVILLE, BALL STATE, AND SEVERAL INDEPENDENT COLLEGES HAVE SIMILAR TECHNOLOGICAL PROGRAMS. HOWEVER, THERE ARE A NUMBER OF AREAS IN THE STATE WHERE NO SUCH PROGRAMS EXIST DESPITE THE NEEDS OF BOTH INDUSTRY AND RESIDENTS.

THE STATEWIDE SYSTEM PERMITS THE PURDUE WEST LAFAYETTE SCHOOL OF TECHNOLOGY TO OFFER APPROPRIATE PROGRAMS IN AREAS OF THE STATE WHERE A NEED EXISTS, BUT NO PROGRAMS ARE AVAILABLE. IN ADDITION, IT IS BELIEVED THIS STRUCTURE WILL SERVE AS A MORE SATISFACTORY METHOD OF OPERATING THESE PROGRAMS NOW UNDER A "GUEST/HOST" ARRANGEMENT.

IN ANY AREA OF THE STATE NOT SERVED BY AN APPROPRIATE TECHNOLOGY PROGRAM AND WHERE A NEED IS BELIEVED TO EXIST, THE PURDUE OFFICE OF MANPOWER STUDIES WILL CONDUCT A SURVEY TO DETERMINE THE NATURE AND EXTENT OF THE NEED. IF A PARTICULAR PROGRAM WERE FOUND TO BE JUSTIFIED, PURDUE WOULD THEN ORGANIZE SUCH A PROGRAM THROUGH A CONTRACT WITH A LOCAL EDUCATIONAL INSTITUTION: A REGIONAL CAMPUS, INDEPENDENT COLLEGE, OR INDIANA VOCATIONAL TECHNICAL INSTITUTE. THE DEGREE AUTHORIZATION WOULD HAVE TO BE OBTAINED FROM THE COMMISSION FOR HIGHER EDUCATION.

PURDUE ADMITS THE STUDENT TO ITS SCHOOL OF TECHNOLOGY AT WEST LAFAYETTE AND PROVIDES THE FUNDING OF THE PROGRAM FROM A COMBINATION OF FEES AND ALLOCATIONS FROM A SPECIAL LINE APPROPRIATION FOR THE STATEWIDE TECHNOLOGY PROGRAM. ON A CONTRACTUAL BASIS, THE COOPERATING INSTITUTION PROVIDES COURSES TO STUDENTS ACCORDING TO PURDUE SPECIFICATIONS. PURDUE EMPLOYS FACULTY NECESSARY TO TEACH THE SPECIALIZED TECHNOLOGY COURSES NOT AVAILABLE AT THE LOCAL INSTITUTION.

FOR INDIANA UNIVERSITY REGIONAL CAMPUSES HAVING THESE PROGRAMS, THE FULL STATE APPROPRIATION SUPPORTING THESE PROGRAMS ARE MADE TO THE STATEWIDE TECHNOLOGY BUDGET. THE STUDENTS ADMITTED TO THE PROGRAMS ARE CHARGED THE FEES ESTABLISHED FOR THE RESPECTIVE CAMPUS, WITH THE GENERAL SERVICE FEE PORTION TRANSFERRED TO THE STATEWIDE TECHNOLOGY BUDGET FROM INDIANA UNIVERSITY. THE STATEWIDE TECHNOLOGY PROGRAM CONTRACTS WITH THE CAMPUS FOR ALL ENROLLMENTS IN SUPPORT COURSES NECESSARY FOR THESE STUDENTS AND PROVIDES DIRECTLY THE SUPPORT FOR THE TECHNOLOGY COURSES AND LABORATORIES. ADDITIONAL LIBRARY HOLDINGS ARE PROVIDED BY THE STATEWIDE TECHNOLOGY PROGRAM AND BECOMES ITS PROPERTY, NOT THE PROPERTY OF THE CAMPUS.

AT INDEPENDENT INSTITUTIONS WHERE THESE PROGRAMS MIGHT BE OFFERED, FEES COMPARABLE TO THOSE OF PURDUE UNIVERSITY ARE CHARGED. A CONTRACTUAL AGREEMENT IS MADE WITH THE "HOST" INSTITUTION FOR THE NON-TECHNOLOGY COURSES AND OTHER SERVICES REQUIRED. STATE APPROPRIATIONS TO SUPPORT THESE STUDENTS ARE MADE TO THE STATEWIDE TECHNOLOGY BUDGET. FOR BUDGETARY REQUESTS, ALL COST ESTIMATES ARE BASED ON AVERAGE COSTS INCURRED AT THE PURDUE CAMPUSES FOR SIMILAR PROGRAMMATIC OFFERINGS.

IF THE NEEDS OF A PARTICULAR REGION CHANGED OR CEASED TO EXIST, THE OFFERINGS WILL BE ALTERED OR ABOLISHED. USE IS MADE OF TELEVISED INSTRUCTION, AND LOCAL FACILITIES ARE TO BE UTILIZED WHENEVER POSSIBLE. AS CURRENTLY ENVISIONED, ELECTRICAL ENGINEERING TECHNOLOGY, MECHANICAL ENGINEERING TECHNOLOGY, COMPUTER INTEGRATED MANUFACTURING, AND COMPUTER TECHNOLOGY WILL BE THE PROGRAMS IN GREATEST DEMAND.

IT IS BELIEVED THE STATEWIDE SYSTEM OF TECHNOLOGY WILL ASSIST IN THE ECONOMIC DEVELOPMENT OF THE STATE AND WILL RESULT IN: THE EDUCATION

OF MORE AND BETTER TRAINED HIGHLY SKILLED SCIENTIFIC AND TECHNICAL PERSONNEL IN THE HIGHEST DEMAND DISCIPLINES; A BROADER GEOGRAPHICAL DISTRIBUTION OF THIS EDUCATIONAL OPPORTUNITY ACROSS THE STATE; AN EXPANSION OF RESEARCH PERTINENT TO INDIANA AGRICULTURE AND INDUSTRY; AND INCREASED ACCESS TO THE KNOWLEDGE AND EXPERTISE OF PURDUE FOR BUSINESS AND INDUSTRY.

SUMMARY

THE INDIANA UNIVERSITY, PURDUE UNIVERSITY, AND THE CONSORTIUM APPROACH TO PLANNING AND MANAGING ACADEMIC PROGRAMS IN TECHNOLOGY, INCLUDING THE ADMINISTRATION OF THE HUMAN, FISCAL, AND PHYSICAL RESOURCES NEEDED TO UNDERGIRD THESE PROGRAMS, IS SOMEWHAT UNUSUAL. BECAUSE OF THE HIGH COSTS OF DELIVERING HIGH TECHNOLOGY PROGRAMS, THE DEARTH OF QUALIFIED FACULTY, A MISSION AND CURRICULAR EXPERTISE INDIGENOUS TO A LAND-GRANT UNIVERSITY, AND THE ELIMINATION OF UNNECESSARY DUPLICATION OF PROGRAMS AND EQUIPMENT, THE UNIQUENESS OF THE CURRENT AND PROPOSED ARRANGEMENTS BETWEEN PURDUE AND INDIANA UNIVERSITIES, AND INDIANA UNIVERSITY AND THE CONSORTIUM, MIGHT WELL SERVE AS A PARADIGM FOR OTHER COLLEGES AND UNIVERSITIES AS THEY APPROACH THE DEVELOPMENT AND DELIVERY OF ACADEMIC PROGRAMS IN TECHNOLOGY.

A SOCIAL CONSTRUCTIONIST APPROACH TO CURRICULUM AS AN INTEGRATIVE DIALOGUE

TIM McCRACKEN

One of the major contributions an Honors Program can make to any college's curriculum is to revitalize and reenergize it. Certainly the extrinsic values are clear: quality students, enhanced public image, born again faculty and lots of P.R. But like so much in our world, all of these values don't seem intrinsic to the program, to be really seen at the heart of our endeavor. This is because Honors Programs, as with the rest of so many academic movements, can either mask a retrenchment of anachronistic ideas or can simply be a superficial tinkering with a deep, ongoing problem. How can restructuring of the curriculum avoid being merely rearranging deck chairs on the Titanic and become a true change away from a disasterous course?

Few of us involved in the recent national upsweep in Honors Programs can avoid the feeling that we are in the midst of a fundamentalist academic revival. Yes, by golly, the best students the best faculty, and the best books. There! We are back home again, we are what a college should really be.

Yet to anyone who reads, listens, looks and thinks, it is quite clear that if the Modernist movement upset us at the turn of the century, then the Post-Modernist world is positively frightening. The music we hear is not the comforting strains of Mozart, but the chant-like repetitions of Steve Reich, Philip Glass, and Laurie Anderson, our literature doesn't give us Dickensian closure, but gives us men and women who are less than zero, caught in a white noise, and the bourgeoisie who ridiculed impressionists' works now prefer the abyss over the lily pond to that over abstract painting.

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And in this world, art and ideas are interchangeable, so what is true in our art is no less true in our ideas. The works of Polyani, Grene, Rorty, Geertz, and Barrett among others point to a restructuring of the very way we think about thinking. If an Honors Program is to serve as a model of a core curriculum that core should be at the heart of current thinking about thinking. The great temptation to Honors Curriculum is to restructure the program as an escape from the "real" world; to make an academic Eden removed from the chaos and clutter of this world. In fact, what many of our philosophers tell us is that our thinking about thinking has radically changed. The integrity of any curriculum restructuring might heed some of the following.

Richard Rorty: Personhood "is a matter of decision rather than knowledge, an acceptance of another being into fellowship rather than a recognition of a common essence." (Philosophy and the Mirror of Nature, p. 38).

Jerome Bruner: The "self is a construction, a result of action and symbolization . . . I think of 'self' as a text about how one is situated with respect to others and toward the world -- a canonical text about powers and skills and dispositions that changes one's situation, changes from young to old, from one kind of task to another, etc." ("The Language of Education," Social Research, p. 849)

Clifford Geertz: The blurring of genres "is a phenomenon general enough and distinctive enough to suggest that what we are seeing is not just another redrawing of the cultural map -- the moving of a few disputed borders, the making of some more picturesque mountain lakes -- but an alteration of the principles of mapping. Something is happening to the way we think about the way we think." ("Blurred Genres: The Refiguration of Social Thought," American Scholar, Spring, 1980, p. 166)

Here emerges a new understanding of the complex relationship between knowing and being, a new attitude on the self, the very shift in human perspective. Just as our music swarms with dissonance and our arts with ambiguity, so too our educational environment seems likewise swamped. We teach, however, different than we know. The traditional classroom has a clear-but authority teaching those less in the know what to think. But we feel the crush of deep subjectivity and the burden of freedom. We tell our students about their overpowering freedom. Mutely, unquestioningly they write it in their notebooks. They could be tested on this. True or false: the contemporary mind is trapped in ambiguity.

One of our first choices in designing our program was what would be at the heart of our approach, one that would avoid elitist escape, retrenchment in the guise of "reconstruction", or "enriched experience", single discipline courses, i.e. Honors English 101, Honors History 101.

What is clear to us from the start is that our understanding had to be reflected within the curriculum. We think, for example, that the cultural sense of doom we have (as it might be put by the existentialist) is not the sign of our end, but the reaction to the shockwave of the tremendous sea change we are experiencing. This experience must reshape the very way we teach, for it is the way we learn. What is this new vision and how does it reshape our understanding of knowing?

What has emerged from our reading, listening, and understanding is that the drive for a central, unchanging truth is futile. This, of course, is our central, unchanging truth. Much of 20th century thought has brought us to these crazy loops, loops of fugal, circular thinking we cannot escape. These crazy loops are at the center of the contemporary mind. In our world, contradiction becomes counterpoint, inconsistency is the norm, our dichotomies are enfolded, not separate.

We seek our cue from a rare figure in 20th century thought the poet-philosopher-mathematician Jacob Bronowski. In The Identity of Man [New York: American Museum Science Books, 1971] he emphasizes the complexity of human learning: "No knowledge can be certain that continues to expand with us as we live inside the growing flesh of our experience." (p. 37) Later he notes that poetry seeks to "exploit its ambiguities." while science seeks "to minimize them." (54) Notice, he speaks of minimizing not of iradicating ambiguity.

This lack of certainty or the absolute existence of ambiguity is at the heart of our approach. The notion that behind or beneath or beyond subjectivity are fixed and eternal absolutes, is the chimera of our professional and personal lives.

What this ambiguity leads us to is that perhaps our culture is not dying but its Faustian self-absorption is. The self is not lost, we don't "find" ourselves. There is nothing to find.

The self is a kind of creation, a construction, something we make ourselves. The self is not isolated by and mired in deep subjectivity, a subjectivity which forbids anyone including the self, itself, from knowing its true self. There is no gulf between it and an absolute, there is rather a creation of a notion of the self in relation with the world.

What began in mid-19th century France as impressionism was nothing less than the radical shift in personal perspective, from the self as solitary seeker to the dialogic relationship between self and self, or self and thing. Monet is reported to have said that he did not paint objects but the light between himself and the object. This light or the play of light on water, or the ever-changing shapes of clouds is not a pretty escape from an urbanized world, it is the shift from self as isolated thing, to the ever-fluid dialogue between inhabiters in the world. This dialogue is the relationship built between things and this relationship is ever-moving, like the light in a hay field, or a cathedral facade, or on an ordinary pond on an ordinary day.

What this posits is that language is a crucial component of this relationship. Language is the way we construct the self, is the substance and articulation of the relationship, is in fact the reality of the relationship. Little wonder Wittgenstein noted that the limits of our language are the limits of our world. For language carries the burden of understanding of the relationship we build with the world.

In this way our Honors Program seeks its mode of integration: the various disciplines are the special languages which articulate that understanding of the world. The power of an individual discipline lies not in giving the truest truth, but in providing the most articulate understanding of that relationship.

This is why the existentialists put so much emphasis on being *in* the world, not merely *of* the world. As Majorie Grene noted, "My awareness is not a separate subjective 'in-itself,' but at one and the same time an assimilation of what is beyond and an extension of myself into things beyond. The interpenetration of 'self' and 'world' is not only a central characteristic of mind; it is what mind is." [*The Knower and the Known*, p. 56]

Therefore, our Honors approach had to shed the notion that what we would do is present the parade of great ideas before our humbled but excellent students; nuggets of wisdom for the select few. Rather, our approach is quite simple. As Grene said, "My mind *is* the form I am engaged in knowing." (p. 55)

This concept provides further basic constructs of the Honors Program and informs every decision. The human mind has always been interpretating the world from cave paintings to Max Headroom. It is the relationships we have formed with the world that are important, and its meanings are open themselves to interpenetration and, thus, interpretation. We live in a network of relations. No one is an island if one has a language, for language is the substance and sign of the relationship.

This is why we rapidly went from the concept of interdisciplinary to that of an *integrative* approach. As Julie Thompson Klein noted [*AIS Newsletter*, May, 1986] "integrative" always raises the question of epistemology to which "interdisciplinary" is essentially indifferent. "Interdisciplinary" means that each discipline presents its side of the issue. Integration raises and makes central the unity of knowledge. As Geertz so actively asserts, the boundaries between disciplines which traditionally were never very clear are now in our world deeply blurred and in some cases obliterated. Of course, we must keep in mind the crucial difference between disciplines and departments. The former is characterized by a consistency of language, methods and approaches which affirms the knower's sense of personal knowledge. The latter is often nothing more than a politico-bureaucratic method of academic crowd control.

The current course in curriculum redesigning is often disasterous because it fails to make clear the distinction between discipline and department. Our Honors Program represents a change in course because it emphasizes the unity of knowledge, the shared purpose in understanding, and takes seriously the nature of the language each discipline uses. We make central the idea that each learner is working from a personal base of understanding which is to use an oxymoron uniquely similar to all others. Unique for each of us is articulating our ever-changing relationships with the world, but the patterns of those relationships are similar. These relationships share certain forms, methods, metaphors, and approaches.

This again reinforces the concept of being-in-the world and this further impacts on the educational environment of our Honors Program. The great shift in perspective is from a vertical to a horizontal transcendency. If the concept of the authoritative imperial self is abandoned, then so too abandoned is much of the concept of the professor as chief knower and actor who passes what he or she knows to the lower levels. Rather, the professor's position is to articulate the interpenetration his or her mind has made of the world. Therefore, the professor is in the classroom, not merely of it.

Likewise, the student is also in the classroom. As with the large world, in the small world of the classroom, we are in dialogue, not monologue with each other. The attempt is to always understand what someone has said, not to criticize, analyze or revise, just to understand. The student therefore must interact with the language of the classroom; the student must actively participate, not merely passively spectate. If the honest struggle and drive to understand on both the professor's and student's parts is not honored, then the curriculum is a failed enterprise. We have all seen the autocratic teacher rearrange the chairs into a circle -- we are all equal, the professor is saying -- only to lecture from that spot. If the student cannot participate, he or she is merely looking for a comfortable deck chair.

For this reason, we have structured the Honors classroom time in a very specific way. Presenters are allowed to structure the class as they want, but most present their ideas in an hour to an hour and a half. Then there is a break in which students are encouraged to discuss among themselves any questions they may have. The remainder of the class time is devoted to the discussion of student and faculty questions.

Often, however, the material has been so thought-provoking, and the time so limited, that students have requested more time to discuss. So we now have another scheduled but informal session we call the Forum. The name we have borrowed from Jerome Bruner and we like his explanation.

> . . . a culture is as much a forum for negotiating and renegotiating meaning and for explicating action as it is a set of rules or specifications for action . . . It is the forum aspect of a culture that gives its participants a role in constantly making and remaking the culture -- their active role as participants rather than performing spectators who play out their canonical roles according to rule when the appropriate cues occur. (p. 839)

In this way the Forum is the enactment of the idea of the program: culture is something we make together.

But this forces two problems into being: If there is this drive towards horizontal transcendency, what is the role, if any, of quality? And if we are present-bound as this approach seems to be, what is our view of history?

In the traditional classroom, quality is decided by the professor. It is the professor who determines those who should be read. Honors cannot do away with this central fact: the professor is more widely read than the students. In an integrative faculty of many professors, this situation is compounded.

Yet we cannot lose sight of quality. We must steer a delicate path between an elitism based on authority or a pluralism which is afraid of choice. The horizontal transcendency of values has often been misunderstood as a pluralistic tidalwave doing away with all values; the landscape is flattened. The reshaping of the cultural map, however, still contains valleys and peaks.

We cannot abandon the notion that some humans have articulated their understanding of their world with such insight, grace, brillance, wit, or profundity that we must linger in that understanding. We must penetrate those minds to understand the fabric of their understanding.

If one reshapes the landscape, then how is one's perspective changed? We affirm a basic principle here: we cannot remove ourselves from the present. This means our unique view of the horizon permits us to highlight those who seem to have shaped our present. They make up the landscape we call mind and we choose to study those who have not only made a great impact on the past, but those who are integrated in our present mind.

Here again we must face two very different approaches to texts. One has it that the works of others are merely a backdrop for our own dance in the cosmos. The other is a selfless presentation of the work as pure object; a cultural artifact we can walk around but should not touch.

Choice of texts depends therefore on highlighting those who have understood their world and whose understanding still informs our own. Our knowledge, we posit, is always in the personal present. But our job is to understand. We try to understand our place but in their way. What is the quality and nature of the relationship with that world? What is the content of the knowing and how does this knowing effect being in the world?

Let us take Dante for example. Why should we read Dante? Why should we read The Inferno with its outmoded, anachronistic view of the world; a view so dated, Dante makes popes blush? And our students rebel. How could Dante's contemporaries believe in Hell? This is a view for children, a Catholic school vision one outgrows.

Well, of course, it is very possible that The Inferno scared the hell out of many readers. If, however, an attempt of the Program is to present an integrative view of the world, then we need texts which themselves are integrated and articulated visions. The Divine Comedy is a magnificant articulation of poetically realized theology based on ancient philosophy. The chaos, and injustice (Dante himself had suffered much) of the mortal world is replaced by a divinely ordered afterlife with everyone and everything in its place. Dante's own vision integrates the ideas of Aquinas and Aristotle, his own political views, and is part of the art and architecture of his world. If his God is perfect and that perfection manifests itself in divine wisdom, love, and justice, then all of the cosmos is touched, shaped, molded and penetrated by that perfection. In the Commedia we have one of the last artistic expressions of universal harmony until the Newtonian universe is put on display.

The form of the Commedia is rather ancient: it is the mythopoetic journey from confusion and despair ("the dark wood") to knowledge (the luminous circles of paradise). Yet its details reflect the culture of the times. For example, at one point when Dante expresses a very human sympathy for a doomed and suffering sinner, Virgil scolds him for second guessing God's ultimate wisdom. And later we see that Virgil who represents human wisdom must leave Dante because in his divinely ordained journey, human reason can take Dante so far. Grace in the form of Beatrice must take Dante the rest of the way.

So Dante becomes not an interesting figure in the parade of art and ideas, but the articulation of that drive towards absolutes, the need for a divinely inspired architecture of the soul, eternal justice and for an unshakeable certainty which can still be found in the contemporary mind. When we develop our rubrics and devise categories, when we hug our great expectations as a given plan, aren't we reliving the Dantesque relationship with the world?

In this light, Carl Sagan's Contact, for example, takes on added significance. It is a very interesting reading, stylish and intelligent, yet it does towards the end seem very familiar. It is the story of one woman's struggle from childhood to contact with a superior alien mind (in the guise of her dead father - Dante and Freud, move over). No one believes she has made contact. But she knows it and her "father" told her that these aliens don't know the answer to the universe either. But they were sure it had something to do with pi. As Eleanor Arroway (I didn't say Contact was subtle) says:

> "This isn't just starting the universe out with some precise mathematical laws that determine physics and chemistry. This is a message . . . This is the only thing that would convince a skeptic. Imagine we find something. It doesn't have to be tremendously complicated. Just something more orderly than could accumulate by change that many digits into pi. That's all we need. Then mathematicians all over the world can find exactly the same pattern or message or whatever it proves to be. Then there are no sectarian divisions. Every day beings reading the same Scripture. No one could then argue that the key miracle in the religion was some conjurer's trick, or that later historians had falsified the record, or that it's just hysteria or delusion or a substitute parent for when we grow up. Everyone could be a believer." (p. 419)

We are not too surprised later when we read that "Hiding in the alternating patterns of digits, deep inside the transcendental number, was a perfect circle, its form traced by unities in a field of naughts." (p. 430)

In Paradiso, Dante reaches the Eternal Light which is "the universal shape":

> In the deep bright essence of that exalted Light, three circles appeared to me; they had different colors, but all of them were of the same dimension; one circle seemed reflected by the second, as rainbow is by rainbow, and the third seemed fire breathed equally by those two circles. (Canto XXXIII, pp. 114-120, Mandelbaum translation)

This Dante concludes is "the Love that moves the sun and the other stars."

This isn't intended as a clever reading of two texts separated by nearly 700 years. Rather, it is to show that mind is not an isolated thing trapped in history, nor is it always stuck in the present. Rather, our literature, arts, ideas, and forms are a function the mind takes as metaphors of understanding the world. When Douglas Hofstater makes a connection between the fugue and crazy loops in mathematics, or when we make connections between cubist painting, the multiple viewpoint novel and the fugue, we begin to see the specific application of universal forms of dialogue with the world. These - our arts and ideas - are our specific articulation of those relationships. Like language itself, their relationships following universal patterns -- a grammar of experience -- that in their utterance are unique and specific to that case. As with language, the basic grammar is always relatively fixed, but what can be said is infinite.

We see in Dante and Sagan their explicit understanding and metaphors of understanding are very distinctive. Yet their implicit understanding seems quite similar for apparently they are following ancient patterns of articulation.

Our understanding therefore is to concentrate on both the uniqueness and the similarity. And this approach mirrors the entire approach of Honors: to highlight, discuss, to understand how humans are constantly striving to make meaning and to understand not so much human nature, but the nature of being human.

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INTEGRITY THROUGH INTEGRATION

The Honors Core at Northern Virginia Community College

Paul McVeigh

NVCC began its Honors Program in the Fall of 1985 with, at each of its five campuses, a selection of discrete honors courses--some enriched regular courses and some specialized elective courses. It was naturally a tentative beginning, primarily because it had to prove itself to number- conscious administrators. However, though we described the practical need for the program, few students took more than one honors course per quarter. Our "program" was merely a collection of courses without much connection to one another but the label "honors." Students were not in a comprehensive curriculum, though they could have chosen to be from the courses available; they were not embracing the *idea* of *honors*. Perhaps this is understandable in that it was only our first year, but for students to have "identities" as honors students they should have been taking more active part in honors coursework. Further, and more importantly, we felt honors courses should be more than mere enhancements of regular sections, and rather be identifiable as different in concept and method.

For these reasons we began, at the Alexandria Campus--one of the two large campuses--an Honors Core with fifteen freshmen, in addition to the other discipline courses. It *should* go without saying, but I'm afraid it can't, that an Honors Program should be guided by an ideology; it should make a statement, if any program does, of what the role of an education *ought* to be. Conscious of Paolo Freire's declaration, "There is no neutral education," or, as he explains, "Education is either for domestication or for freedom," we have sought to make the Core as *liberal* as possible within the rigid constraints of present curricular form.

The Core attempts to achieve this by combining three fundamental year-long course-sequences: Introduction to Philosophy, the History of Western Civilization, and English Composition -- all of which must alter in approach, though not in objectives, to give the student a glimpse of the wholeness of knowledge, to see the relationships between ideas, between disciplines. The Core reading list, the focus of discussions and papers, is largely, though not exclusively, drawn from the Great Books, which are employed consciously not only as models of thought but as models of composition, and to this end the large majority are read in their entirety, as works before which teachers and students alike can learn together. The historical component tends to address itself more to the Great Issues. (*Book List*) As in the Great Books program at St. John's College, we want our students to recognize, as well as take part in, the common pursuit of Truth, which departmentalization can often destory or limit. We want them to *possess* knowledge, or rather have it possess them, not just be "aware" of it, or "know where to find it if they need it." We want them to think for themselves:

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to challenge rather than submit to received "wisdom", to have the ability to discover coherence and pattern behind surface change, to be able to weigh the merits of absolute and relative values, to have tolerance for diversity.

The Core's form is the most liberal -- the seminar. Learning begins with questioning, and for this to take place there must be the freedom to give and take among all participants. Learning to ask the right question and to pose problems with insight are essential to the identity of the Honors Program itself, because such freedom provides for the student's desire to participate actively. That is to say, those who wish to take active responsibility in their learning experience *are* -- for us and, as we have found, for most 4-year institutions -- the real *honors students*. They are the self-motivated who wish to challenge themselves in an extra-ordinary learning environment. A Grade Point Average or SAT score are of secondary consideration.

Most of our freshmen in the Core are 19 or 20, but not all. Several are in their mid-to-late 20's; this is a class composition which, though it has been typical of community colleges since their inception, is increasingly less unusual in undergraduate classes. Our older students, for their part, generally return from the workplace to college because they sense there must be something more, not just to life but to themselves: they have experienced a fortunate reaction to the everpresent triviality and impersonality of contemporary society. The younger students--the typical freshmen--though they may have come to college for very different reasons than their older counterparts, are ironically similar to them in their expectations: regardless of their ages, they are sensitive to the ambiguities, the uncertainties inherent in undertaking a college "education". They do not entirely believe such commitment to a credential now will guarantee them a fulfilling career. Whatever their career goals, freshmen still come with an image of what a college education ought to be, of what it means *to be educated*, or what an educated person possesses. However, as Ernest Boyer's Carnegie Foundation report (entitled *College*), to name only the most recent of the studies, makes clear, these expectations are usually disappointed. Most first-year college courses present students with summaries of knowledge and/or information in the form of textbooks, or with lectures which assume new students are little more than receptacles, or with programs of too-early specialized study that serve (however well intentioned) the department's or the discipline's interests, not the students'. It's by this means that the "academy" becomes *other*, becomes one of *them*, not part of *us*; it becomes apparent that faculty and administrators are maintaining a procedure detached from meaning, that there is little concern for the substance of the student's intellectual growth, apart from seeing how much he can remember.

A seminar of coordinated courses, on the other hand, and concentrated on the works of great thinkers, diminishes the borders between disciplines, attempts to look at issues in relation to real, present experience, and, above all, elevates the student's self-worth by making him feel he is taken seriously as an educable flesh-and-blood human being.

The Present Core students came forward because the Core's concept struck them as valid. Every one of them has verified this in his or her own way: they enrolled out of doubts about presently committing themselves to mere career-training, out of curiousity about the unorthodox approach, or because they recognized the authors on the reading list as "keys" to becoming truly educated (however quaint or classical that notion seems to be). As the Core has progressed, they have discovered learning together, forming on their own informal study groups. The experience of working together--in or out of class-- has helped each reinforce the other's response, and they have gradually gained confidence in the expression of their considered opinions; they have become increasingly comfortable with debate, with open constructive criticism; and generally speaking have a unique comraderie as a class. Such relationship to their fellow students has helped deter self-preoccupation -- which characterizes so may first-year students -- and enables them to focus upon issues of "general education." One of the best features of my experience with the Core is to observe the students observe themselves in the process of education (and a good deal of useful time is spent discussing this issue as a result of their questions. Some readings, such as Plato's Republic, Rousseau's Emile, Newman's Idea of a University, have deliberately been selected in order to bring their attention to the issue, but their enthusiasm for the subject has nevertheless been unexpected. (They find themselves, for example, in the brothers Glaucon and Adeimantus who complain to Socrates of the injustice pervasive in their society, and whose question in turn unfolds the "republic" itself).

In saying the Core students have become less pre-occupied with self, and yet have found new self-confidence, I have expressed an apparent contradiction; and yet it is not a contradiction but a valuable irony that goes to the heart of the process of liberal learning -- by learning together in this way they learn to be autonomous -- as thinkers, as men and women who know something of and value integrity.

This progress has not been without struggles, even occasional failures. Because small group learning has a dangerous tendency to create easy consensus, they must struggle to find their own individual minds on an issue. And this they cannot be expected to adapt to immediately; only through a long-term nurturing does this independence emerge.

The object of a college education therefore needs to be in sight most within the first year. Students at that threshhold are most in need of the acknowledgement that they have something to offer -- and it is my experience that they learn better when they believe they are so regarded. The Core is one learning format that honestly reinforces the formation of individual integrity. To recognize this is especially important for us in the community colleges, where it is often observed that if our students lack anything it is self-confidence, a secure feeling about their real abilities. Though it is nearly impossible to generalize about any community college class, it may be that, like freshmen elsewhere, they require, to use Paolo Freire's terms, a form of education that liberates rather than dominates.

A CURRICULUM MODEL OF AN INNOVATIVE NON-TRADITIONAL INTERNATIONAL LIBERAL ARTS COLLEGE

Michael Belsky

Historical Perspective

Friends World College was founded in 1965 by the New York Yearly Meeting of the Religious Society of Friends. It grew out of a need within the Quaker community for an experimental college with a global perspective. The college is presently non-sectarian but continues to encourage students to grapple with pressing social concerns in the United States and at its overseas centers.

To understand the historical roots of Friends World College (FWC) it is necessary to be familiar with the vision of world education articulated by college's first president, Morris Mitchell.

> World Education must replace this inverted perspective with an objective one built on the knowledge that all men share the same basic needs sufficient nourishment, adequate clothing, suitable shelter and privacy, sexual expression and physical health, economic security, mutual devotion, recognition and appreciation, recreation, education, the experience of growth, the sense of sharing, the sense of purpose, and optimum freedom; and moreover, that we all subordinate these values according to the circumstances: all hungry men are alike in subordinating freedom, if necessary, to the demands of hunger. So we must learn that the only moral equivalent of war is war on the causes of war.
>
> Tribal attitudes must be replaced by a sense of inescapability of world community before prevailing hostilities loosen powers that will ten-fold overkill us all, so that we can, together, as one human family, realize exquisite excitement, the sheer music of spinning daily the rounds of our globe in our galaxy, midst other galaxies flung through space.

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> We must accept a revolutionary change of attitude toward the nature and function of the educational process. For in content, too, we must outgrow the now universal, the provincial pattern which employs education as a tool to transmit tribal beliefs, tribal attitudes, tribal structures, tribal skills, tribal habits, and tribal knowledge. Education must undertake a loftier purpose an aim of new qualities, new dimensions. It must become for now a tool of human survival, and that assured, must assume as its ultimate goal individual and social growth, based on reverence for life, as an end in itself. Then education on a world scale will be the social counterpart of the creative forces that shape our destines. (Mitchell, 1967)

The methodology of World Education encouraged by Mitchell was "problem-solving" education, as defined by John Dewey in How We Think (1933). This approach encourages students to be self motivated and to utilize imagination and values to grapple with critical problems.

In an attempt to build community and trust within the college Mitchell utilized group dynamic and organizational development techniques developed by Kurt Lewin, the American founder of social psychology.

The ideas of Ivan Illich (1980) and Paulo Freire (1970) have gradually been incorporated into the curriculum to foster a model of "critical consciousness". This approach encourages the active exploration of the personal, through an experiential study of abstract concepts requiring a dialog among equals. Students studying in third and fourth world communities are encouraged to examine complex social, political and economic problems utilizing this perspective.

Over the past twenty-two years the college's goals have not changed significantly. It still takes as its mission the development of well-educated world citizens who are enabled:
-to combine first hand experiences in different cultures
-to test theories and skills against the demands of practice and service
-to do field study that synthesizes cross-cultural observations and analysis, and
-to develop a world view and a level of achievement to prepare for a life of committed action in the interest of the world community

Structure of the College

Friends World College is a small international liberal arts school with eight program centers and campuses around the world. The centers are located in Huntington, New Yok; London, England; San Jose, Costa Rica; Jerusalem, Israel; Machakos, Kenya; Banglore, India; Kyoto, Japan, and Jilin, China. At the present time 95% of the students entering the college start at the North American Center.

The college offers just one degree, a Bachelors of Arts in Interdisciplinary Studies. Because the college has an interdisciplinary rather than a departmental structure, the student does not have a "major" field in the traditional sense, rather, students select an "Area of Concentration" from any of a broad range of world issues and academic fields. All students study foreign languages as tools for field work and all engage in the study of other societies/cultures.

Students are required to live and study for at least one semester in two different cultures other than their home culture and to earn 45 semester credits in such cultures. The college strongly recommends that the two different cultures be in different major regions of the world and that the student spend two semesters in each culture.

Policy decisions are made utilizing consensus, with student representatives being encouraged to participate at all levels of college governance. The consensus process is difficult but it encourages students to feel committed and responsible for the school.

Curriculum and Program of the North American Center

Since the author of this paper is a member of the faculty of the North American Center (NAC) and most familiar with its curriculum, this paper will emphasize the program content and organizational structure of this Center. The NAC is responsible for three different programs: a one semester residential freshman program, a continuing student field study program, and a visiting and transfer student orientation. The following is an overview of the three programs.

Freshman residential program: In September approximately fifty freshman students arrive at the Huntington campus to participate in a thirteen week residential program. During the first week they meet with their faculty advisors, individually and in small groups, and are given an orientation to the college's curriculum and philosophy. They also begin their two required core courses:

"Introduction to International Studies" and "Introduction to Experiential Education". The International Studies class provides an overview of pressing global political, economic, and social issues, and the Experiential Education class requires students to do a mini-internship and to learn field research and journal documentation skills. During the second week students select three elective seminars from different academic disciplines for a combined total (core and electives) of twelve semester credits.

Community meetings are introduced to help students learn the college's consensus decision making process and the politics of the school. Community work encourages students, faculty, administration and staff to work together on school projects as a team. The work experiences attempt to change student perceptions of faculty as authority figures and encourage faculty to seek out direct forms of communication with students.

While in the residential program students are strongly encouraged to meet with their advisors to review their academic work and to plan their second semester field study project. In addition students work closely with the internship coordinator and director of financial aid to apply for a field study project and to design a budget to meet their second semester's expenses. When a project is established the faculty advsior helps develop a preliminary learning plan which is presented to the student's internship field advisor for review and revisions. The revision process often extends into the second semester.

School work is usually documented in a typed academic journal and evaluated by faculty for credit. The college does not use grades, which means journal evaluations and transcripts are written utilizing a narrative form.

The college has articulation agreements with approximately ten colleges and universities in North America which permit FWC students to enroll for credit. For example an FWC student in New York City can attend classes at Cooper Union College, Brooklyn College and the City College of New York. Students are required to complete all course work and to document their experiences within their journal.

During the second semester students usually live off campus where they are responsible for household obligations. It is important for students who are planning to study overseas to have prior independent living experiences and practice meeting financial obligations.

The NAC has weekly seminars in New York City, Washington, D.C., and the San Francisco-Bay Area to help students analyze and document their field projects and to provide emotional support. Faculty advisors visit their students at their project site and work closely with field advisors to evaluate the students' course of study. Students are required to submit journals every two weeks for review by their faculty and field advisors. Comments by advisors on their field projects assist students in analyzing their work and may suggest modifications in their learning plan.

During the month of May students return to campus to review their second semester's (15 credits) journal and to participate in an overseas regional orientation program. This consists of presentations on their field project and a critical evaluation of their internship and the documentation process. During the regional orientation program students participate in classes on cross-cultural issues, global politics, ecology, and a series of seminars focused on the region at which they will study. Students respond to the questions raised in the seminars and required readings through documentation in a three credit journal. A student's progression to an overseas center is made by the recommendation of the entire NAC faculty.

For the summer break students are given a bibliography of suggested readings on their regions and advised to correspond with overseas center faculty.

Continuing Students: Continuing students are usually non-freshman students choosing to study in North America. For most continuing students the design of their study programs is similar to the second semester of the freshman year. The course of study usually begins with an advisory session to determine class standing, a review of records to determine if the college's distribution and two culture requirements have been met, and an enquiry of career goals. After the initial advisory session students continue to work closely with the faculty advisor and field coordinator to establish a project, develop an approved learning plan and locate a reasonably comfortable living situation. A continuing student's learning plan carefully fleshes out the specifics of their course of study, it might include: field study, classwork, independent research or a project. He/she is required to submit his/her journals every two weeks for review by the faculty and field advisor.

The eigth semester senior who is a continuing student is required to complete a senior thesis or project. First he/she works closely with the faculty advisor to complete a well planned project or thesis proposal, which is distributed to the faculty of the center for comments and approval. Senior work represents a student's grasp of the subject matter in the student's area of concentration. The completed thesis is reviewed by a paid outside examiner who must recommend the student for graduation.

Visiting and Transfer Students: Many colleges and universities have sent students to our program for overseas experience. In addition, approximately sixty students per year transfer into our program, especially if they are interested in international field study. Visiting and transfer student orientations are designed to prepare students for study overseas and to provide an overview of the college's philosophy and mode of operation. It's an intensive four week residential program that includes daily classwork and independent study. Community work and community meetings are integrated within the program. The subject areas covered are global politics and economics, world hunger and development, research methodology, nutrition, cross-cultural issues, health and first-aid, journal writing and regional seminars. Students use a reader and regional texts to support their course work. All work is documented in a journal which is evaluated by advisors for three credits. The residential orientation is utilized by the faculty to screen students for health, academic and emotional problems. To be progressed to an overseas center a student must have the backing of the entire center faculty.

Overview of Overseas Center Programs

Costa Rica - Latin American Studies: The first semester of the Latin American program is focused on a total immersion in the language as a course of study. Students are required to live with Costa Rican families and attend daily languuage classes. Integrated into the program are lectures and seminars on the politics, economics, cultural traditions and environmental concerns of the region. During the last two weeks of the semester students visit Nicaragua and attempt to grapple with pressing issues confronting a region in transition and country under attack. By the end of the first semester most students have sufficient language proficiency to begin a field project.

The second semester usually includes continued language study, independent research, and a field project that is outlined in a learning plan and documented in their journals. Students with good Spanish language skills can take advantage of the center's articulation agreements by enrolling in classes at local universities. As is the case with all FWC centers student work is documented in a journal which utilizes a narrative form of evaluation; the journal is then evaluated by faculty and field advisors.

Kenya - Africa Studies: The African studies first semester program consists of an intensive ten week core curriculum which includes two six credit classes: "Introduction to Historical and Contemporary Africa" and "Intensive Swahili Language Training". The Historical and Contemporary Africa class includes "...readings, field trips, and a rural home stay to provide students with background on the political, social, enviormental and cultural realities of Kenya, in particular, and East Africa in general." The intensive Swahili training is taught daily by first language Swahili speakers and incorporates living in the City of Lamu, a monolingual Swahili community. Following the core program students participate in a three credit field project. The entire first semester's work is documented in a journal and evaluated by their advisor. The following semester, students design a course of study which can include an internship, independent study assignments, or class work taken at a local university.

Israel - Middle East Studies: The Israel program consists of a five week intensive orientation to the region. The orientation course consists of "... readings, discussions, field trips, meetings with guest speakers, students are introduced to the geography, history, archeology, people, economy, Arab-Isreali conflict, ecology, politics, planning and development, culture and religions."

After the completion of the orientation program students are encouraged to enroll in an intensive Hebrew or Arabic language course of study. They usually live in local communities and participate on projects where they can utilize their language skills.

Due to the violence in the Middle East students are not yet permitted to participate in projects outside of Isreal.

England - European Studies: The European Center program is based in London but encourages students to carry out field projects in other parts of the British Isles and Western Europe. The first semester consists of a four week course which is an "Introduction to Contemporary Issues of Great Britian and Europe". It includes seminars, readings and field trips and is intended to introduce students to contemporary political, economic and social reality. Students planning to study on the Continent are encouraged to participate in an intensive language program in the London area during the first semester. Those with good prior language training are permitted to go directly to their field projects. The European Center has excellent articulation agreements with regional colleges and universities which permit our students to enroll for classes.

India - South Asian Studies: Students participating in the first semester "Introduction to Indian Culture, Philosophy and Religions" course meet at the center, in Banglore, India, and travel with the director for three weeks studying current political, economic and religious issues confronting the region. An optional language program is available for students interested in studying any of the major fourteen languages. Most students begin their field projects during the first semester and combine language training and living with a family or community. India has been one of the most difficult countries in which to conduct field study projects due to the cultural and economic demands of the region. Therefore it is essential for the Indian faculty to work closely with students who may experience enculturation problems.

Japan - East Asian Studies: The first semester of the East Asian Studies program includes the following core subject areas:
"Introduction to Contemporary Japan and East Asia" - The class includes readings, field trips and homestays. A study trip to Korea and /or Hong Kong gives the opportunity to view some of the economic, social and cultural differences in Asia.
"Introduction to Asian History, Economics and Politics" - Focused on student interests, it includes seminars, readings, guest lectures, trips to historic sites and rural areas.
"Intensive Japanese Language Training" - Utilizing an innovative method called "The Silent Way" the student acquires language rapidly which is reinforced by the total immersion experience.

During the last three weeks of the first semester students usually begin field projects which reflect their areas of concentration.

The second semester includes language training, internship experiences and individualized study assignments. Students work closely with their advisors and document their work in an academic journal.

The China Program: The China program gives students a unique opportunity to grasp the unity of Chinese culture imbedded in a diversity of political and economic forms. The program takes place in three radically different Chinese settings: Taiwan, Hong Kong and the People's Republic of China (PRC).

Students spend the first semester in Taiwan where they attend the Mandarin Training Center's course in spoken and written Chinese. To supplement the intensive language program students design individualized study plans from the following interest areas: philosophy, martial arts, calligraphy, literature, music, theater, health care, history, religion or society.

For the second semester students move on to the PRC. A two week orientation in Hong Kong includes an intensive English as a Second Language (ESL) training course and an introduction to the history, society and politics of Mainland China. They leave Hong Kong accompanied by their faculty advisor and travel by train for two weeks visiting Beijing and two other major cities. They arrive in Jilin Province where they will be required to do eight hours of ESL teaching per week at one of two different regional colleges. In exchange for their teaching they receive eight hours of Chinese instruction per week, free room, a small stipend, and are encouraged to study one of the following areas: art, music, calligraphy, literature, film, etc.

Through a guest scholar exchange program with FWC four Chinese faculty from two Jilin colleges have spent a year at FWC's North American campus studying the college's philosophy and course of study. Once they return to China they are prepared to act as field advisors for our students.

Conclusion

Ernest Boyer in his report for the Carnegie Foundation describes his vision of the undegraduate experience as:

> ... the aim of the undergraduate experience is not only to prepare the young for productive careers, but also to enable them to live lives of dignity and purpose; not only to generate new knowledge, but to channel that knowledge to humane ends; not merely to study government but to help shape a citizenry that can promote the public good. (Boyer, 1987)

At Friends World College students are encouraged to grapple with contrasting points of view and to formulate their own critical perspective. They evolve from a highly subjective and individualistic position focused on self and competence, to a more global awareness incorporating commitment and service to their communities, nation and world.

This paper has provided an overview of the curriculum. A far more complex task is to analyze the dynamics of the organization. The survival and prosperity of the college is a paradox considering the economic problems it has faced over the past 22 years. The existance of the college today is due, in large part, to the commitment of the students and alumni to keep their college alive so that their children will also experience a "World Education".

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COMPUTER INFORMATION SYSTEMS: CASTLETON'S FIRST INTERDISCIPLINARY PROGRAM

MICHAEL J. BETHEL

Historical Perspective

Castleton State College one of the four member colleges of the Vermont State College System has only recently become involved in a Bachelor's Degree in Computer Information Systems. For a period of years in the 1970's the Vermont State Colleges (VSC) had suffered a series of fiscal deficits which had forced some stringent monetary constraints upon the system as a whole. It was also during this time that the recognition of the potential worth of computer and information processing degrees were evolving within the State College System. The Computer Information Systems (C.I.S.) Program at Castleton State College was a response to this problem and perceived opportunity.

Prior to 1980 Castleton State College, a member of the VSC had extremely limited computing capabilities which were used predominatly for administrative purposes and was batch oriented. With the acquisition of a DEC VAX 11-780 for the entire VSC System in 1980 Castleton was truly just a remote input site. Academically however, there was an existing Computer Programming Degree (A.S.), offered through the colleges' Mathematics Department, as well as, a significant interest in computer related studies amongst business faculty, students and the local Castleton Administration.

An Ad-Hoc Committee was formed to study the feasibility of bringing the college into this potential degree area. During this time, the VSC leadership had also begun the process of finding a feasible way of meeting a recognized need for computer education within the State College System. It was within the defined mission of the VSC to prepare students for future opportunities which would be available if the proper education and training were offered.

The major issue that had to be dealt with from both system and college levels was securing the necessary funding to create significant academic computing potentials at the colleges. Given the fiscal problems of the VSC it was obvious that outside long-term funding sources be investigated for the purchase of the required computer hardware and software necessary to support the conceived new program.

Creation of the Computer Information Systems Program

The Board of Trustees and the Chancellor contracted the assistance of the EDUCOM Consulting Group (E.C.G.) to help them make management, and organizational decisions related to the future impact of computer technology on the VSC System. The Board also allowed each of the member colleges to begin the process of designing their proposed offerings in the computer realm. Additionally, part of this responsiblity was that each college begin the process of seeking the necessary sources of funding to support the proposed programs.

Castleton's Ad-Hoc Committee had already begun developing a proposed set of courses to create the Computer Information Systems Program, while, at the same time the Associate Academic Dean was preparing a Title III Grant Proposal to generate the necessary long-term funding.

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It was decided by the college administration, after consulting both internal and external sources, to model the proposed program after the 1981 "DPMA Model Curriculum for undergraduate Computer Information Systems Education", this curriculum has a strong business orientation, which made it easily adoptable to the existing Business Department at Castleton. By selecting this model it was also possible to draw on existing faculty on campus who had computer related skills and experience.

The consultants from E.C.G. then reviewed these proposals, as well as the existing VSC computing capabilities, and made the following recommendations: The current computer configuration would be sufficient to allow for both Academic and Administrative computing for the immediate future without significantly downgrading the system; they also proposed initially using microcomputers whenever possible; especially in lower level courses which would also have the largest potential student enrollment.

An additional section of the consultants recommendation was oriented towards meeting personnel needs within the system. As part of the VSC Administration, a administrative level position (Coordinator of Academic Computing) be created to represent the academic computing needs to the Chancellor. It would be the responsibility of this administrator to make recommendations and requests concerning the Computer Center, software and hardware acquisitions for Academic Computing, and strive to stay abreast of current ideas, products, and trends in academic computing. On each campus, E.C.G. felt there should also be a computer representative to act as a laison between the individual colleges and the Coordinator of Academic Computing. Finally, they felt there was no immediate need for hiring of new faculty, but as the programs grew at least one new faculty member would need to be added on each campus.

Implementation of the Computer Information Systems Program

With the awarding in 1982 of a Title II Grant to Castleton of $990,000, to be distributed over a five year period Castleton was able to introduce the C.I.S. Program in the Fall of 1982. The program is unique in that it is an integration of Business, Mathematics and Physics courses leading to two potential concentrations, one in Business, and the other in Mathematics. The degree was designed to evolve over a period of four years allowing for modifications when necessary to both the degree and the individual courses.

The initial years of the grant saw significant purchases of microcomputers and software for courses which had to be offered for the program to succeed. Part of the solution to monetary problems was the consolidation of purchases which generated significant price discounts for each member college. As an example of these purchases a COBOL Compiler, a series of terminals and other hardware were purchased at signigicant discounts to allow for remote processing. In the later years of the Title III Grant a DEC VAX 11-750 Minicomputer was purchased to give Castleton students the opportunity for direct training on state of the art equipment.

Concurrently, within the concerned departments some significant changes were also taking place, the Mathematics Department added courses in programming languages currently not offered, and a series of courses in Data Structures and Software Design courses. While the Business Department also created courses in Systems Analysis and Design, Database Technology, and Management of Information.

The Business and Mathematics Departments were also hiring faculty during this period to replace departing members and job qualifications placed emphasis on a strong computer background. Along with the hiring of these new faculty a series of training sessions were offered by the VSC Computer Center to enhance the skill levels of concerned members of both these departments in the use of the existing hardware and software.

Review and Evaluation of the Computer Information Systems Program

By 1986 the C.I.S. Program (attachmment I) had become a significant offering on the campus. The degree had been modified over the five year period to now include offerings in the three original disciplines as well as two additional other departments. From a student enrollment of six majors in 1982 to sixty-one in the spring of 1987, microcomputer growth from less than ten in 1982 to 103 in 1987, two remote terminals to forty-three by 1987 and a large minicomputer housed on campus are all indicators of continued student interest and administrative support for the program. A survey of graduates in the summer of 1986 found a mean average salary of $21,300 which is about 35% larger than the average starting management salary within the state could be used also as an indicator of the need in the state which the program is designed to meet. Students have and are currently working in cooperative work situations which earn the students college credits, money and experience while gaining their degrees.

As a part of the periodic review of the program there have also been some other significant results which were originally not used as justification for the creation of the program. There has been a enormous growth in computer usage on campus, in all areas, which can be partially attributed to both the evolving expertise and equipment now available as a result of integrating the degree. Another significant outcome of these reviews was the discovery of the amount of money saved in the institution by using C.I.S. students to solve existing problems on campus. The VAX 11-750 is managed by student interns rather than hiring a full-time director saving the college approximately $45,000 annually. The Alumni Office has created a 10,000 record database as well as other information on alumni through the work of a series of C.I.S. majors, the Admissions Office has saved between $10,000 and $12,000 annually in data entry costs, by using a software system designed by a C.I.S. student. These are some other examples of the derived benefits. There will continue to be systematic reviews of the program, to guarantee that the resources are being used as efficiently and effectively as possible.

Computer Information Systems

Specific Program Requirements:

Mathematics core requirements for this degree must include:
MAT 111 - Calculus I
MAT 201 - Probability and Statistics I
MAT 139 - Introduction to Computer Information Systems

Natural Science core for Mathematics concentration students must include:
PHY 201 - Physics I
PHY 202 - Physics II

Completion of the following C.I.S. requirements:

BUS 149 - Business Computer-Based Information Systems
BUS 260 - Principles of Management
BUS 416 - Systems Analysis and Design
MAT 109 - DCL and Editors
MAT 229 - COBOL I
MAT 239 - COBOL II
MAT 249 - Pascal
MAT 319 - Data Structures
MAT 419 - Computer Software
PHY 136 - Microcomputers
and one course from each of the following:
BUS 225 - Finance or BUS 231 - Principles of Marketing
MAT 202 - Probability and Statistics II or MAT 306 - Linear Algebra

Complete 9 credits from the following C.I.S. electives

BUS 315 - Managerial Accounting
BUS 349 - Principles of Dynamic Simulation
BUS 426 - Databases
BUS 436 - Management Information Systems (DSS)
BUS 491 - Co-Op
MAT 209 - Fortran
MAT 429 - Advanced Data Structures
THA 261 - Computer Graphics I
THA 262 - Computer Graphics II

Completion of a concentration in Business or Mathematics

Business Concentration:
BUS 115 - Accounting I
BUS 116 - Accounting II
BUS 225 - Finance
BUS 231 - Principles of Marketing
BUS 318 - Marketing Research
BUS 407 - Quantitative Business Decisions
BUS 417 - Operations Management
BUS 465 - Business Policy

Mathmematics Concentration:

MAT 112 - Calculus II
MAT 211 - Calculus III
MAT 212 - Calculus IV
MAT 309 - Numerical Analysis
BUS 407 - Quantative Business Decisions
MAT 301 - Probability
MAT 302 - Statistics
MAT 308 - Ordinary Differential Equations
MAT 316 - Patterns of Problem Solving
MAT 318 - Advanced Calculus

CREATING AN INTERDISCIPLINARY COLLEGE MINOR

JOY CANTRELL

Today's college student is very career oriented. Additionally, the world of work and nature of careers are undergoing vast changes due to the international technological revolution. This has resulted in an increasingly knowledge-based economy driven by a very service-dominated and professionally-based work force. The responsibility of public universities in this environment is to provide the training so that the requisite skills and qualifications are available in the workforce (Nippo,1983; Rudnick,1983).

This is a big challenge for public institutions today and is especially true for colleges of agriculture within land-grant institutions. We must have well-designed and well-implemented programs relevent to societal needs, in order to graduate knowledgeable, articulate, and analytical doers and leaders for U.S. food, agriculture and natural resources. One basic component of our mission is to meet the future expertise needs for our agricultural enterprises (Reisch,1984). The College of Agriculture at Penn State has developed seven specific educational objectives that address these needs. They are:

1) the development of professsional, technical and agricultural competence,
2) the development of critical thinking competence,
3) the develoment of communications competence,
4) the development microcomputer/computer competence
5) the development of values
6) the development of interpersonal skills
7) the development of leadership skills

Historically, agricultural colleges have trained mostly along disciplinary lines (Strayer, Barfield and Wilkerson,1983). Huffaker, as cited in Strayer et. al. (1983), also argues that each discipline involved cannot continue to go its own way; it is the whole production system that counts. Whether it is on the farm,in the home, or on the job, decisions within today's information society cut across many disiciplines or specialty areas. Therefore, it is becoming increasingly important that our educational programs strive for interdisciplinary coordination and application at some point.

Interdisciplinary approaches can specifically be designed to address the students' needs for requisite skills within the work force. This integration may occur between two or more technical areas or more importantly between technical areas and non-technical disciplines. Field and Horner (1986) report the most prevailing job success criteria for graduates is human relations skills. Their findings support those of other studies such as the Harvard Bureau of Vocational Guidance and the Carnegie Foundation. The Harvard Bureau, as cited by Field and Horner (1986) found that of all the people fired from their jobs, 66% were fired because they failed to get

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along with people and only 34% were fired because of lack of technical knowledge. Corbia(1986) and others(Broder and Houston,1986) suggest that the single factor that hinders performance of graduates is communication skills. Leadership experiences and work experience have also been cited by employers as two additional weaknesses among recent college graduates(Broder and Houston, 1986).

Rudnick (1983) reports that student demands and expectations seem to emphasize three items: focused training, flexibility of enrollment and cost effectiveness. With regard to coursework, a high percentage of the enrollment, especially at urban public universities, is seeking skills for quick advancement or credentials. Focused training is a goal. Institutions are going to have to deal with a big disparity between the broad education they feel a responsibility to provide and the lesser training many students want and can acquire elsewhere. Employers are currently emphasizing, well-rounded employees. Thus, creating additional disparity between the students' perceived needs and the employer as well as institutional programs. Providing students with specific interdisciplinary components within their educational program via a minor may address these expectations.

Providing "people skills" to the students in the Pennsylvania State University College of Agriculture is the focus of an interdisciplinary Extension Education minor. The program is aimed at students who are technically experienced, but need to develop expertise in areas of nonformal educational skills.

The program need resulted from the growing complexity of many agri-related professions where employers are seeking graduates with competencies beyond the technical subject-matter. The extension education minor utilizes an interdisciplinary approach to offer a program for undergraduate students to strengthen their skills, knowledge and attitudes in the areas of their study. This "major/minor" combination offers a unique opportunity to combine a strong technical background with the organization, teaching, and communications skills necessary for successful employment. There is also a required six-credit supervised in-the-field internship.

The Department of Agricultural and Extension Education proposed an interdisciplinary minor at Penn State in 1983 with final approval being granted by the Board of Trustees for implementation in Fall Semester 1984. The initial recommendations for such a program through external program reviews, however, began in 1981. It is from this expereience that this paper describes some of the processes used for creating an interdisciplinary minor and some of the issues and questions that need to be addressed.

Establish Need for Program

A careful analysis of the basic supply and demand for creating new interdisciplinary minors should be conducted. What is the potential demand for the program? A market analysis/needs assesment should be considered. The initial data may evolve from several sources:

1) current students who identify unmet needs/skill deficiencies,

2) previous or potential employers of students who identify needs/skill deficiencies,
3) competency studies of alumni who are employed in relevent job skill areas for graduates of the program,
4) other pertinent research on job placement/job success,e.g. published literature; career placement evaluations; evaluations from recruiters, and
5) strategic planning goals of the College/University.

Analyze The Targeted Audeiences/ Potential Demand

Analyze the targeted audience or potential demand in order to map out the potential student characteristics and determine their learning potential/needs. Other key considerations within this initial planning are:

1) How much demand is there for acquiring potential learning that could be acquired through minor program?
2) Where and how would marketing be concentrated?
    - Determine how to attract potential students
    - Determine what features to advertise
    - Determine what majors are attracted to the minor program.

Analyze College Faculty/ Adminstrators

It is important in developing an interdisciplinary program to clearly understand faculty and adminstration's values and views toward such programs. Are they willing to support the program? Of course, faculty will more readily supply support if they have identified the demand for the program. This data provides information to identify policies and participation guidelines that may be needed. Some key considerations with this group are:

1) Are they willing to support the program and under what conditions?
2) Who will teach courses? advise students? maintain the program?
3) Should programs be tailored for employers/organizations?
4) Do they want more enrollment for the unit(s)/ College?
5) Who gets credit for the program? What are the benefits to individual faculty?

Analyze Other Providers

Are you developing a program or courses that exist elsewhere within the University? If so, decisions must be made to determine if you will be competing, or are there ways to cooperate. These are important clarifications for program justification and acceptance within university curricular affairs committees. Some questions to explore about other providers are:

1) Who serves whom and how much?
2) What courses and program objectives are addressed?
3) How do they serve whom and at what costs?
4) What is not being offered?

This process of determining supply and demand within the program development is critical for sound program justification. It will provide evidence and support of the need as well as resources available. A summary of this process is illustrated in figure 1.

Basic Supply-Demand Analysis*

ANALYZE	USING	WITH
CONTEXT	Demographic data	Target audiences Internal environment- College/Departments Faculty
DEMAND	Interviews/surveys	Potential students Alumni Employers/Organizations
SUPPLY	Questionnaires Course Descriptions	Faculty/ administrators within College
	Course Descriptions	Of Other Educational Providers within Institution

*Note: Adapted from Schulman

Figure 1

Legitimization and Establishment of Interdisciplinary Committee

A minor that is established from coursework of several discipline areas should be supported by an interdisciplinary faculty committee. This step of program development is the most crucial for all phases -- initiation, implementation, and maintenance processes of an interdisciplinary program.

In establishing the interdisciplinary Extension Education minor this legitimization process was conducted with a faculty liaison from each of the 12 disciplines(departments) within the College. These liaisons not only represent the committee to support the proposl they become the identified program faculty for listings within the University bulletins. This initial process of identifying appropriate individuals and the legitimization of the minor program--the need, its purpose and objectives, and course of study may be a very lengthy but important part for the successful adoption of the minor. Not only do you have a core of faculty support for initial acceptance by curricular affairs committees, you have developed the foundation for linkages and the network for future recruitment.

An interdisciplinary faculty committee can be important for several factors. These factors should be mutually identified and agreed upon by everyone as the roles and responsibilities of faculty liaisons within an interdisciplinary program. This can be a tool to help clarify expectations and determine commitment to the program. Such factors may be:

1) willingness to assist in design and implementation of market analysis/needs assessment

2) identification and support from faculty in other disciplines to support additional students within their existing courses;

3) identify and recruit students that could benefit from the minor course of study;

4) faculty offering coursework to support the minor must be willing to work cooperatively in coordinating existing and future curriculum needs to meet the objectives of the program of study, e.g., course content review, overcoming scheduling conflicts, and participate in future program reviews and updates to meet changing needs of students;

5) become departmental spokesperson for the minor program among other academic advisors within their department;and

6) initiate formal departmental/faculty support necessary for proposal support to meet curricular affairs committee requirements.

Development of Program and Course Proposals

Once the previous steps have been developed and conducted the actual development of the proposal for the minor becomes quite easy in comparison. The development time is much shorter at this point. However, the following components should be addressed.

Program Purpose and Justification

The market analysis should provide the data to support the program need and justification.

Articulate Objectives

A statement of objectives should be included to explain how the proposed new minor meets new educational objectives, or strengthens existing offerings within the College and the University, and benefits students.

Long range planning goals of the College, if existing, should be addressed. The proposal should articulate the "fit" that exists between the two, i.e. mututal end-results.

Description of Program of Study

Procedures and designations for a minor course of study for the respective College and University must be met at this step. The faculty initiator(s) should explore the required procedures for their institution. Generally, the following components need to be developed at this phase.

A program description. This is necessary specificially for an interdisciplinary program. Typically interdisciplinary programs are not offered in areas where majors are given. Therefore, a description must be developed for describing and listing the minor in accordance with the guidelines for the University Bacculaureate Handbook/Bulletins.

A description should address the following items:

a.) a statement of objectives for the minor;
b.) fields of study within the minor, emphasizing any unique aspects of this interdisciplinary minor e.g. internships;
c.) requirements and any recommendations or limitations regarding competencies, skills, or abilities needed for admission, retention, transfer, and program completion.
d.) total credits necessary for program completion.

Curriculum and program design. Develop a list of the required courses and suggested scheduling pattern. The classification of courses making up a minor program of study may vary by institution. Within Penn State and the Extension Education minor the following classifications of courses were used.

PRESCRIBED COURSES: specific courses which must be taken with no choice allowed.

SUPPORTING AND RELATED AREAS: areas from which the student is required to develop supplemental knowledge of competencies but in which considerable choice is permitted; specific course numbers are not listed.

ADDITIONAL COURSES: lists of courses from which the student must choose a specified number.

Working with your faculty liaison committee, prescribed courses must be identified and a scheduling pattern must be developed. This becomes very important when using existing courses from other departments that have set schedules. Faculty commitment to change schedules, if necessary, is very important. If new courses are needed these must also be identified, faculty identified, content developed, and course proposals developed. Scheduling of new courses, also, may be difficult with regard to making them available to potential students. From your market analysis you should have a good idea of the projected student population. Your projections of the majors that would make a nice "fit" with the minor should be taken into consideration with course schedules. For example, offering a minor with required courses that conflict with key courses in 4-5 majors within the college will automatically limit your success. If your market analysis did not provide good projection for the student population this may become a trial-and-error endeavor of tracking the source of your students once the program is implemented. This merely delays smooth scheduling for all involved.

Another consideration, in curriculum development and course scheduling,is the academic semester standing of the student. University/college requirements must be adhered to. From experience, for an 18 credit minor it becomes very hard for students to add more than one course from the minor per semester. This makes it almost impossible for completion at the junior-senior level without careful planning early in their academic program. Most requirements for majors are concentrated at this level also. Therefore, careful cosideration should be given to courses selected, their offerings by academic standing, and scheduling. At least one course should be designed for the sophomore level. Of Course this is dependent upon total credits required. For an 18 credit minor, without internship, it almost requires a schedule across the last six semesters of a student's program. If an internship for more than 3 credits is offered, scheduling may be less of a problem at the junior-senior level provided the students are willing to participate in internships in the summer. Otherwise, depending on the nature and availability of internship sites, an additional semester may be required to complete the minor, an unlikely choice by most students.

Maintaining and Operating an Interdisciplinary Minor

Personnel and procedures for providing leadership to the program must be addressed. Several functions that must be conducted and developed prior to implementation are identified as follows.

1). What procedures and processes are needed to support the College/University recordkeeping systems?
2). Are there formal admission procedures? If so, who monitors these?
3). What process is used and who certifies students for program completion prior to graduation?
4). Who advises students, maintains records, assigns advisors, and supervises internships if applicable?
5). Who is responsible for recruitment and marketing strategies?

These are just a few key questions that must be addressed to maintain a functioning program. Resources must be identified to support these program functions. These resources may not require any additional costs, however, time allocation for program management and advising is a major consideration.

Summary and Recommendations

The processes outlined for creating an interdisciplinary minor in this paper are not linear. The need for a market analysis, development of an interdisciplinary faculty committee, program and course development, and procedures for operation evolve from the total development process.

Interdisciplinary minors can be a very beneficial and cost-effective component among educational programs for focused needs. In order to have an interdisciplinary minor that remains a vital and successful program entity there must be shared ownership and a strong support base. This reiterates the need for a careful program development process.

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AN INDIVIDUALLY DESIGNED INTERDISCIPLINARY DEGREE PROGRAM

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A state university has the obligation to provide higher education opportunities to the citizens and taxpayers of the state. Yet in the times of educational hardships and budget crunches, it is financially impossible for any institution to be "all things to all people".

The University of South Carolina started a unique baccalaureate degree program in 1972 that has proven to be an ideal vehicle for many students to achieve their stated career goals in the absence of a formal degree program in their area. The Bachelor of Arts in Interdisciplinary Studies degree program allows students to utilize any of the courses of the University to tailor a program of study to suit their own individual career or interest goals. It represents a departure from the traditional structured approach to undergraduate education. As the BAIS degree is designed, it offers the students maximum flexibility in developing a curriculum that in effect becomes tailor-made for their individual educational or vocation goals, as well as personal interest in continuing their education. The only specific graduation requirements are those that the University requires of all graduates--namely, the proper grade point average, correct number of semester hours, and minimum number of hours completed in residence at the upper division level.

The BAIS degree at the University evolved out of four separate needs the University was receiving from the students and community. First, there was a desire of many students to be allowed greater responsibility in the selection of their courses and still be able to apply these toward a baccalaureate degree. Dr. Keith Lupton, editor of Innovative Higher Education in the Fall/Winter 1986 issue says college students "were into challenging many things in our society and would not accept "just because" as the reason for the ways things were done. They also provoked ideas that education should be relevant." Second, was the desire of students attending the University's two year regional campuses to be able to take a greater number of baccalaureate level courses at their original campus. Third, the desire of students who were completing a two year technical education degree to be able to continue toward a baccalaureate

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degree with a minimal loss of credit. Finally, the University was seeking a method of determining student interest in a new area of study before starting ~~the~~ the lengthy procedure for starting a new degree program. To date, three separate baccalaureate degrees have been started at the University after student interest was demonstrated by enrollment in the BAIS degree program. Now it is possible for University students to receive a baccalaureate degree with a major in media arts, criminal justice, or retailing rather than in interdisciplinary studies through the BAIS.

The BAIS degree permits the student to assume the major part of the responsibility for developing, under faculty guidance, a program of study to meet individual needs. By recognizing that these individual needs are diverse, the degree allows a student to design a unique combination of courses to meet that stipulated goal. Students may select courses from the various colleges of the University, providing that the necessary pre-requisites have been met.

Approval_Process

Prior to the start of the BAIS degree program, the University participated in the University Without Walls and Contemporary University programs which allowed a student one semester in which to do independent study courses that would apply toward a baccalaureate degree. While this allowed the student greater flexibility in developing a personalized program of study, students were still limited in the number of hours that could be earned in this manner. When discussion started about developing a new baccalaureate degree program that would be centered around an individualized program of study, the concern of faculty and administrators was that this degree not compromise the integrity and academic standards of a University degree.

Accordingly, the development process involved almost two years of faculty committee research, projections, analysis, and review before the initial proposal was made to the University Faculty Senate. The initial proposal was developed by a group of senior faculty members and would have allowed a student to select courses leading toward his career goals with only the approval of his academic advisor. This proposal was sent back to committee by the Faculty Senate as they believed it was essential to have a greater amount of faculty involvement in the course approval process and a degree of supervision over the initial programs of study that were being developed.

After revision the proposal to start an interdisciplinary degree was approved by the Faculty Senate in March 1972, by the University's Board of Trustees in May of 1972 and by the state's Commission on Higher Education in July of that year. The final proposal as passed by the Faculty Senate indicated that ". . .a new baccalaureate program be created. . . . it will require 120 semester hours, . . ., and will have no specific curriculum. Each student will follow an individually curriculum designed in consultation with an advisory committee." It further specified that: a) the BAIS degree program would conform to all existing University academic, eligibility, and graduation requirements, b) that students admitted to the degree program would have three academic advisors who would be responsible for approving courses suggested by the student and add other courses as they believed necessary. These advisors would have to agree to the courses selected in order for the student to graduate, and c) that a committee be appointed to make an annual report to the Faculty Senate on the number of students enrolling in the program, the hours they earned while enrolled, their graduation rate, and a follow up on their employment after graduation.

To these requirements, the College of Applied Professional Sciences specified that the student complete a minimum of thirty semester hours after being admitted to the degree program, and that students would not be considered for admission until they had completed a minimum of thirty semester hours. This insured that students would have a solid liberal arts background in case they wanted to change to a more traditional major and that students would have faculty input in the selection of courses that would constitute their major area of interest.

The first semester there were 77 students enrolled in the BAIS degree program even though there was virtually no publicity released. These students represented a cross section of the University community as well as several transfers from other institutions who had expressed a continuing interest in the development of the new degree program. The program has expanded from the Columbia campus to allow students to be accepted for admission while in military service, while incarcerated, or while attending one of the two year campuses of the University. To date there have been over 3,000 graduates who have earned a Bachelor of Arts in Interdisciplinary Studies degree at the University.

Admission Process

To assure that students enrolling in the BAIS degree are not seeking an easier route toward graduation, an admissions committee was established to review students' applications for admission. The admission form contains few but very revealing questions. The student is asked to indicate his career goals so the committee may determine if he could be better served in achieving this objective by enrolling in a more traditional baccalaureate program. The applicant is also asked to indicate why the BAIS degree program will enable him to meet these career goals better than any other program at the University and to list those courses that he would like to take to meet this goal. The response to this section indicates to the committee how much thought the student has given to enrolling in the BAIS program. The student is also given the opportunity to include a personal statement in which educational background, enrollment status, etc., can be explained in greater detail. This statement, along with the stated career goals, is used in the assignment of advisors for those students admitted. Additionally, a copy of a transcript indicating all previously completed college-level work is required. As a further safeguard, the student must sign a statement of responsibility before the application will be processed. This statement says in part that the applicant realizes that ". . .it is a personalized degree program, and I am willing to accept the responsibility for the courses proposed and accepted."

The application is reviewed by an admissions committee composed of the Director of the BAIS degree program and four faculty members appointed by the College Dean. It is their responsibility to screen out all applicants who clearly belong in the more traditional degree programs, and those who are only seeking enrollment to avoid a particular requirement in their current major, e.g. a business major who applies to avoid enrolling in statistics, but still wants to take the other courses of the business curriculum. The use of a committee also removes the admissions process from any one individual and can act as a shield to prevent unwanted pressure for admission of students.

If the application is approved, the student is notified and told who his faculty advisors are. It then becomes the student's responsibility to contact his major advisor and arrange an appointment to schedule the entire committee and to plan the actual course selection that will lead to the baccalaureate degree.

Advisement

Advisors are assigned to the student committees using the student's indicated career or occupational goals. While every student's program of study could be different, experience has shown that committees composed of faculty from the student's major area of interest know the general courses that will be most beneficial for the indicated goal and will include these in the final program of study. In addition, the committee must be sure that all University requirements for graduation are included in the program of study.

Once the program of study is developed, a contract is signed by all members of the committee. This signed program of study becomes the student's curriculum to follow to receive the BAIS degree. It is fairly easy to modify or change the contract by request of the student to his advisory committee for legitimate educational reasons.

Student Reactions

Approximately every three years since the program was started, a questionnaire has been mailed to the currently enrolled students asking for their evaluation, criticism, and recommendations for improvements in the BAIS degree. A separate questionnaire is mailed to the graduates of the program on the same frequency.

The majority of students currently enrolled as well as the graduates believe that the program should not be modified. A greater percentage of currently enrolled students than graduates believed that the program should have a more open admission policy. None of the graduates who responded believed that the degree should be one of accommodation in which the students only had to enroll in a set number of hours and then apply for graduation. Graduates, more than currently enrolled students responded that the admission process should be more stringent, some were of the opinion that enrollment should be reduced so that only the most serious students would be admitted.

A majority of the responding graduates indicated that if it had not been for the availability of the BAIS degree program they would not have completed their baccalaureate degree at the University. Less than one-third indicated that they would have continued in another degree program at the University.

Students were asked to indicate the most important reasons for their applying for admission to the program. A few indicated that they believed they would be unable to meet graduation requirements in other programs; however, the response most frequently indicated was that the BAIS was selected because of the freedom it gave them in designing an individualized program of study. Another response selected by many was that the BAIS program allowed them to utilize a greater number of hours previously completed that was possible with the more structure oriented baccalaureate majors. These questionnaires seem to indicate that students are motivated by the freedom of course selection allowed and by their ability to utilize college credit previously completed as an integral part of their program of study.

Employment Opportunities

The follow-up surveys of the graduates have indicated that there has been a growing acceptance of hiring graduates with interdisciplinary study degrees. The initial graduates of the BAIS reported that they had to explain the nature of their degree and that it was not just a degree representing attendance, but a valid degree earned at an accredited institution of higher education. They usually found it beneficial to have a transcript indicating the courses they had taken to complete degree requirements.

As the degree became more widely known in the community, graduates indicated that there was less reluctance on the part of prospective employers to interview them for positions. The latest survey of graduates indicated that the employers were more concerned with the type of courses and the grades earned than in the exact title of the degree they held.

The over 3,000 graduates of the BAIS degree are employed in a wide variety of positions. These occupations include education, architecture, lawyers, artists, criminal justice, media arts, business and medical professions.

Summary

The BAIS degree program has met the expectations of its early advocates. Graduates of the degree program have been able to enter their chosen occupations and they have been very enthusiastic about the opportunity to earn a baccalaureate degree in which they had the major responsibility for course selection.

There have been several spin-off benefits for the college as well. Faculty in our college have become more involved with their colleagues on campus, initially in meeting to develop a program of study, and then through greater involvement in areas of mutual interest. Faculty have become better advisors, and the administration believes better instructors as well because of the increased interaction with students that the BAIS advisement process requires.

Any degree program seeking to provide employment access for graduates must be measured on the rate of success and be willing to listen to input from graduates. Accordingly, we plan to continue to survey our graduates and seek their suggestions for seeing that the interdisciplinary studies degree always remains what a former President of the University of South Carolina described as "the degree of the future."*

Lupton, Keith Dr. Innovative Higher Education, Fall/Winter, 1986.

B.A. HUMANITIES: A TAILORED DEGREE FOR THE NON-TRADITIONAL ADULT STUDENT

Denise M. Hart

Abstract

As the enrollment of the traditional 18-to-22 year-old college student declines, the number of adult students 25 years of age and older is increasing. "Currently one-third of our postsecondary students are over 25 years of age. It is estimated that by 1992, one-half of the postsecondary students will be 25 or older." ("Take Another Look at the Typical College Student," 1986). Demographic profiles of these students includes women who are returning to school to train or re-train for the workplace, men and women who are looking to enhance midlife career changes, and laid-off employees from declining industries. The curricula available at the undergraduate level must be able to fulfill the needs and interests of this non-traditional student population.

The B.A. Humanities degree offers opportunities for the adult student to pursue courses for self-fulfillment in the fine arts, literature, history and philosophy while satisfying a concentration which could address the individual's career orientation. The degree offered in the Colleges of Liberal Arts and Arts and Sciences has recently taken on a new perspective. During the seventies, the Humanities majors were traditional undergraduate students. However, with the increase in the number of returning adults in the college classroom, the student interests were more focused on the application to the work environment and/or to the productive use of leisure time and lifelong learning.

The program philosophy was thus predicated upon several premises:

1. that students are best prepared for most careers by the kinds of learning experiences provided for within the humanities major
2. that the adult non-traditional student utilizing their life/work experience could best apply the liberal education framework to the technical skills required in their employment
3. that the adult student develop an appreciation for the arts, literature, history and philosophy to enjoy film, theatre, travel and reading in their own leisure time.

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The common thread shared by all Humanities majors is the interdisciplinary seminar where a theme can appropriately be applied for all students utilizing their specific expertise and secondary concentrations.

The B.A. Humanities major is truly the contemporary among college offerings to meet today's adult students' needs.

Historical Perspective

The B.A. Humanities degree was originally instituted in 1972 through the College of Liberal Arts (then Arts and Sciences) at the Rutherford Campus, Fairleigh Dickinson University, Rutherford, N.J.. The majors were traditional age 18-22 year-old college students. The objectives of the degree at that time were to promote "a program which provides an experience whereby students and faculty, in a meaningful exchange of ideas, are challenged to integrate their insights using a multidisciplinary approach to learning." (The Major in Humanities: A Multidisciplinary Experience," 1972) The program's goals were to afford maximum flexibility and personal involvement at a time when there was an increasing emphasis on specialization. The students pursued major courses of study revolving around four themes:

1. the forming of the western consciousness (ancient civilization)
2. the idealizing of man and its humanistic rejection (medieval and renaissance)
3. the rationalizing of man and the romantic manifesto
4. the alienated man (twentieth century)

("The Major in Humanities: A Multidisciplinary Experience", 1972).

The humanities majors could have devised their own program of studies centered around an idea of their own choosing, or they might have chosen a different issue for each of the thematic areas, in consultation with a department mentor. The Humanities "major" requirements closely simulated what we know as "honors" programs with students investigating areas of interest under tutorial guidance as it applied to their major. Included in the Philosophy departmental offerings were "multidisciplinary seminars" which were required as part of the humanities major. Elective credits could have included Education courses to prepare individuals to teach Humanities on a secondary level. All majors were required to fulfill University requirements for the College i.e. liberal arts core requirements.

In 1981, the degree was revised recognizing that "the contemporary world academic studies must nourish — and be nourished by — their orientation toward specific work options. It thus advocates the true interplay of theory and practice in all educational venture. Specifically, the program affirms:

A. an expanded understanding of 'literary' to include proficiency in a wide variety of skill areas;

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B. the need on the part of current educators to provide opportunities for students to integrate the learning process in formal classroom settings with those which can only be realized outside the classroom itself and the university; and

C. an awareness that the educational process must include opportunities for students to take the lead in documenting their learning in a variety of public forums." (L. Grob, personal communication, November 1981)

Still focusing on the traditional-aged student, this afforded the humanities major to partake in "work experience" which would correlate with academic studies within their program. For example, a student accumulating a concentration in journalism (as part of their humanities degree) could have become involved with the campus newspaper and other school publications, local newspapers, etc..

Adult Degree Program

With the advent of the University's adult degree program, Success in 1985, the B.A. Humanities degree had yet another focus. The career orientation option within the degree program was modified to address this new student cohort. These humanities majors held substantial positions in employment and were looking for educational opportunities to broaden their perspectives for self-fulfillment, life-long learning, and to contemporize their knowledge within an employable field.

The Humanities degree was now composed of liberal arts core courses (required of all majors within the College of Liberal Arts and Arts and Sciences); three to twelve credits within the Interdisciplinary Seminar (minimum of three credits required); the Major (twenty-four credits) with courses to be taken in at least two of the four areas including Literature (American, English or Foreign), Philosophy, Fine Arts or History; and a concentration (18 to 24 credits), either as a formally acknowledged Secondary Area of Concentration within the University (so stated on an individual's transcript upon commencement) or a cluster of related courses within an area of the student's interest. The remaining free elective credits would complete the degree requirements for 128 credits. (see Figure 1 and 2)

Students at all three Campuses of the University are eligible to become B.A. Humanities majors. Although the College of Liberal Arts (Teaneck/Rutherford Campuses) and the College of Arts and Sciences (Madison Campus) are differently constituted, all Majors complete the same "major" and general University requirements for the degree.

Twenty percent of the Success student population (N=147) are presently B.A. Humanities Majors. This curriculum allows these adult students to apply transfer credits, diversify their interests within the liberal arts while focusing on a "concentration" to gain knowledge and skills for application in employment, leisure activities and perpetual learning. Also within the Success program, non-traditional adult students may request credit for prior learning which is equitable to college-level learning and appropriate to their degree requirements.

Liberal Arts Majors

A liberal arts degree focused on the enhancement of the quality of life provided by new experiences and insights creates avenues for increased personal growth on the social and economic levels. "Liberal Arts graduates are back in demand in corporate suites, and it's a trend that is sure to bring rewards to companies that realize the practical value of a liberal education". (Wyman, p. 27)

A general education provides an individual with a diverse forum of ideas, concepts and values along with the critical thinking skills for creative analysis. A broad liberal arts background generally provides students with better writing and oral skills necessary beyond the technical drawing boards. Likewise, as corporations establish international headquarters, language and culture courses become bonuses for the employee's livelihood.

An indication of the support for the liberal arts major has been shown by the creation in 1984 of the Corporate Council on the Liberal Arts which represents twelve major companies including CBS, American Express, American Telephone and Telegraph, General Motors, Johnson and Johnson and others whose interest is in the utilization of the liberal arts graduate in the Corporate enterprise.

Fairleigh Dickinson University's formula for success incorporates both the comprehensive range of liberal arts studies and the opportunity for concentrations marketable in industry.

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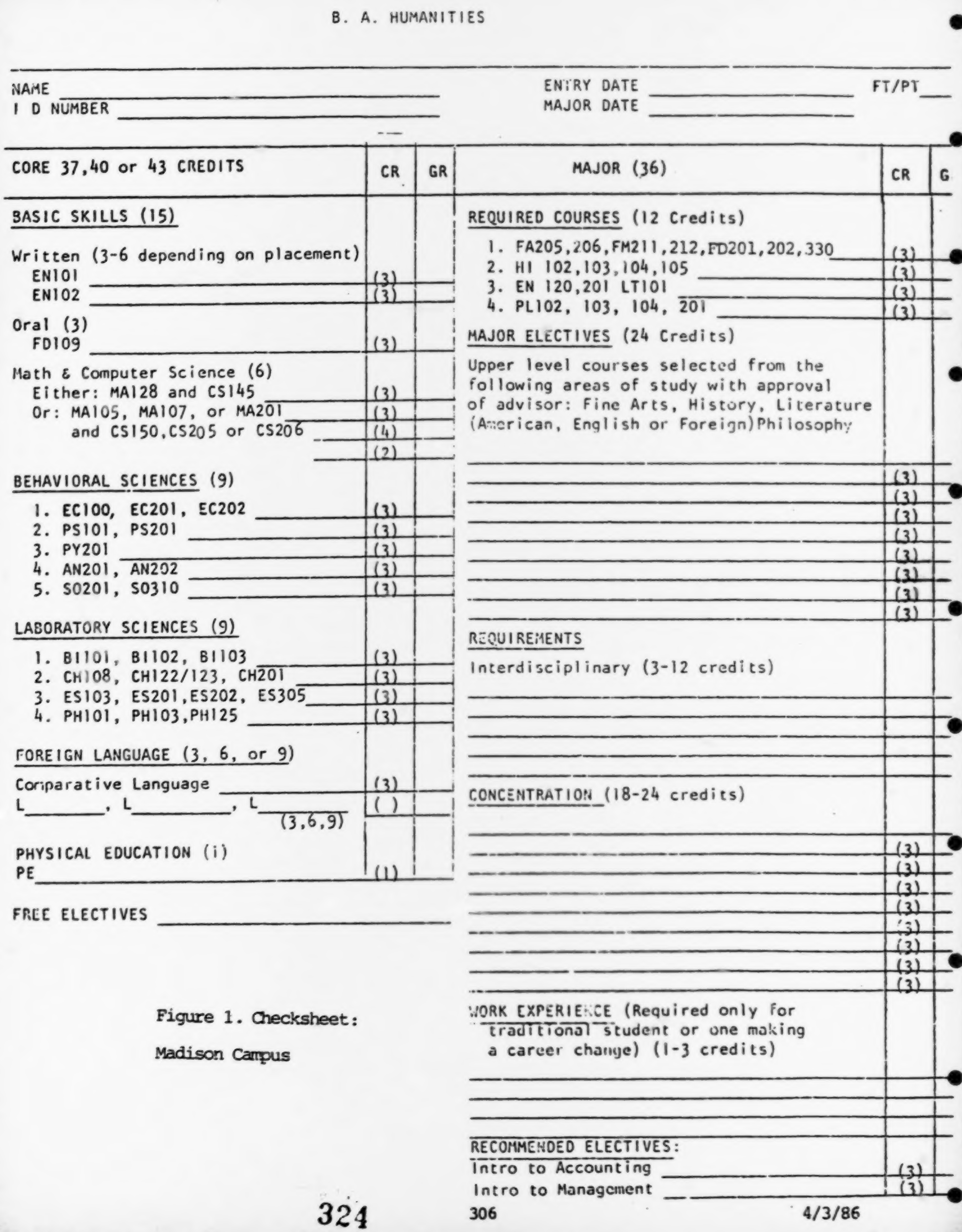

B. A. HUMANITIES

NAME ______________________
I D NUMBER ______________________
ENTRY DATE ______________________
MAJOR DATE ______________________
FT/PT ____

CORE 37,40 or 43 CREDITS	CR	GR
BASIC SKILLS (15)		
Written (3-6 depending on placement)		
EN101	(3)	
EN102	(3)	
Oral (3)		
FD109	(3)	
Math & Computer Science (6)		
Either: MA128 and CS145	(3)	
Or: MA105, MA107, or MA201	(3)	
and CS150,CS205 or CS206	(4)	
	(2)	
BEHAVIORAL SCIENCES (9)		
1. EC100, EC201, EC202	(3)	
2. PS101, PS201	(3)	
3. PY201	(3)	
4. AN201, AN202	(3)	
5. SO201, SO310	(3)	
LABORATORY SCIENCES (9)		
1. BI101, BI102, BI103	(3)	
2. CH108, CH122/123, CH201	(3)	
3. ES103, ES201,ES202, ES305	(3)	
4. PH101, PH103,PH125	(3)	
FOREIGN LANGUAGE (3, 6, or 9)		
Comparative Language	(3)	
L______, L______, L______ (3,6,9)	( )	
PHYSICAL EDUCATION (i)		
PE	(1)	

FREE ELECTIVES ______________________

MAJOR (36)	CR	G
REQUIRED COURSES (12 Credits)		
1. FA205,206,FM211,212,FD201,202,330	(3)	
2. HI 102,103,104,105	(3)	
3. EN 120,201 LT101	(3)	
4. PL102, 103, 104, 201	(3)	
MAJOR ELECTIVES (24 Credits)		
Upper level courses selected from the following areas of study with approval of advisor: Fine Arts, History, Literature (American, English or Foreign) Philosophy		
	(3)	
	(3)	
	(3)	
	(3)	
	(3)	
	(3)	
	(3)	
	(3)	
REQUIREMENTS		
Interdisciplinary (3-12 credits)		
CONCENTRATION (18-24 credits)		
	(3)	
	(3)	
	(3)	
	(3)	
	(3)	
	(3)	
	(3)	
	(3)	
WORK EXPERIENCE (Required only for traditional student or one making a career change) (1-3 credits)		
RECOMMENDED ELECTIVES:		
Intro to Accounting	(3)	
Intro to Management	(3)	

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Figure 1. Checksheet: Madison Campus

Last Name	First Name	Date of Admission & Status
		1 2 3 4 5 6 7 8

BACHELOR OF ARTS PROGRAM
Major: Humanities (128 Credits Required)

CORE REQUIREMENTS (61 CREDITS) - to be completed by end of sixth semester. Wherever possible, students under adivsement should take their required courses for one semester in the Interdisciplinary Program (Literature, History, Fine Arts, Philosophy.)

1st Semester Course No.		Credits	2nd Semester Course No.		Credits
____	EN 101 English Composition	3	____	EN 102 English Composition	3
	Mathematics:			Logical Rsng*/Math:	
____	____________	3	____	____________	3
	Language:			Language	
____	____________	3	____	____________	3

*Required for students continuing as majors after the 4th Semester, if not taken as 3-cr. alternative to Math in 2nd Semester.

3rd Semester			4th Semester		
____	EN207 Literary Masterpieces	3	____	EN208 Literary Masterpieces	3
____	PL102 Intro of Philosophy	3	____	PY101 Intro to Psychology	3
	Language:			Language:	
____	____________		____	____________	

REMAINING CORE CREDITS:

Fine Arts (6)	____________	3	____________	3
Laboratory Sci. (6)	____________	3	____________	3
Physical Ed (1)	____________	1	____________	
Social Sci. (6)	____________	3	____________	3
History (6)	____________	3	____________	3

MAJOR REQUIREMENTS

A. Interdisciplinary Seminars (3-12 Credits):

____	____________	1-3	____	____________	1-3
____	____________	1-3	____	____________	1-3

B. Major Electives (24 Credits to be taken from the areas of Literature (American, English, Foreign) philosophy, Fine Arts, History):

____ ____________ ____ ____________
____ ____________ ____ ____________
____ ____________ ____ ____________
____ ____________ ____ ____________

C. Concentration (18-24 credits):

____ ____________ ____ ____________
____ ____________ ____ ____________
____ ____________ ____ ____________
____ ____________ ____ ____________

D. Work Experience (1-3 credits - applicable only to traditional undergraduate student or student making career change):

____ ____________ ____ ____________
____ ____________ ____ ____________

FREE ELECTIVES (10-22 Credits)

____ ____________ ____
____ ____________ ____
____ ____________ ____

RECOMMENDED ELECTIVES:

Computer Literacy	3
Intro to Accounting	3
Intro to Management	3

Courses recorded through: (date, initials and grade point ratio)

____________ ____________ ____________ ____________

Figure 2. Checksheet: Teaneck/Rutherford Campuses

A QUALITY STRUCTURE TO SUPPORT GROWTH OF AN OFF-CAMPUS NON-TRADITIONAL POPULATION

Patricia D. LaBahn, Ph.D.

Barry University, which is located 10 miles north of downtown Miami, Florida, is a 47 year old independent, coeducational Catholic institution of higher education which fosters distinction in the liberal arts and professional studies.

The university is comprised of eight schools with a total enrollment of over 4600 undergraduate and graduate students. In an attempt to meet the needs of adult learners, the School of Adult and Continuing Education (SACE) was founded 13 years ago. Since 1981 the number of adult students has tripled. In the Fall Term, 1986 over 1/3 of Barry's total population was enrolled in coursework through SACE.

Our adult student profile studies indicate that almost 2/3 of the population are women, the average age is 38, 1/4 are from ethnic minorities. Most enroll in order to gain self-satisfaction while enhancing learning and secondarily, to fulfill employment requirements. Over 4/5 are enrolled in degree programs which have an experiential learning credit component for which a Portfolio is produced to document professional experience and competence. It is noteworthy that over 9/10 of the adults are employed.

A sensitivity to the needs of the working adult student body is one of the reasons of SACE's substantial and consistent growth. To meet these needs, SACE offers degree programs which allow a student to earn up to 60 credits for professional experience. The curriculum includes a variety of courses in the liberal arts and professional studies areas. Classes are taught by adjunct faculty who have earned graduate degrees in their teaching areas and who have extensive professional experience. Each student receives individualized academic counseling. Scheduling of coursework is flexible and affords the opportunity to accelerate degree completion. Classes are scheduled at several convenient locations.

SACE has developed a quality structure to support the growth of an off-campus adult population. This population accounts for over 850 students who comprise more than 1/2 of the total enrollment in the school.

Because working adults find it inconvenient or impossible to travel more than a few miles in congested Florida, SACE offers evening and weekend classes during four 10 week terms at several convenient locations. During the current term SACE offers 145 classes at 30 locations in eight Atlantic Coast Florida counties and at two locations in Florida's Colllier County on the Gulf Coast.

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Through a cooperative agreement with Indian River Community College (IRCC), anyone with an Associate's degree may complete baccalaureate studies for a Barry degree at Indian River's campuses in Vero Beach, Stuart and Fort Pierce.

Through this agreement Barry has appointed a Coordinator of its programs and services who acts as a liaison between IRCC and Barry. IRCC provides office and classroom spaces on its campuses for Barry students and staff. Barry provides qualified faculty to teach courses in the Barry degree programs offered at IRCC. Both institutions publicize and promote their respective programs.

Other locations include ten hospitals, two police departments, Homestead Air Force Base, Eastern Air Lines, American Telephone and Telegraph offices, and several secondary schools.

We shall briefly discuss workplace classroom locations which make the program particularly convenient. In many instances, such as the hospital and police department locations, employers either support employees' resolve to earn a bachelor's degree or the employer mandates a baccalaureate degree for job retention or advancement. An increasing number of employers offer partial or total tuition compensation. To facilitate more timely degree completion, employers and SACE cooperate to schedule evening classes at workplaces. Concern for public image and a desire to better serve the community has prompted companies and institutions to open their facilities to any SACE student.

Many workplaces have classroom areas for daytime staff training and development. Most have extensive audio-visual equipment holdings. This classroom space and audio-visual equipment are unused or underused during evening hours when these recources become available to SACE students. Ample parking space plus adequate security are additional advantages of workplace classroom locations.

To service students at all satellite classroom locations, SACE maintains six offices each with a clerical staff and a full-time Coordinator. Each Coordinator, who is accountable to the Associate Vice President for Academic Affairs/Dean of the School of Adult and Continuing Education, is responsible for the program within a defined geographic area.

As an administrator, the Coordinator's role is to advise each student individually; to assist those attempting to earn credits through the Portfolio process; to schedule classes for locations; to recommend adjunct faculty for hiring, retention, and dismissal; to conduct evaluations of course effectiveness; to recruit new students; to oversee textbook ordering and distribution; to plan advertising; and to function as a liaison between the satellite population and the Main Campus.

The results of a 1985 survey of SACE alumni affirm that graduates identify convenient classroom locations as a major strength of SACE. Coordinators, consistently characterized as dedicated and competent, were cited by off-campus students as performing vital functions.

This organizational model balances the University's imperative for quality education with the students' demands for convenience.

DEVELOPING INNOVATIVE CURRICULA THROUGH INTERDISCIPLINARY PROGRAMS AN INFUSION MODEL FOR MULTICULTURAL EDUCATION

Daniel A. Nomishan

Introduction

If America is truly a "melting pot," then there is need to emphasize cultural pluralism. Multicultural education will surely attempt to do this. Teacher inservice education appears to be one avenue or means by which multicultural eduatiion can be promoted. According to the American Association of colleges for Teacher Education (1972), schools should not "melt away cultural differences, ... (nor should they) ... merely tolerate cultural pluralism."

This paper represents a report of the development of an interdisciplinary multicultural education program both for preservice and inservice teachers. The goal of the program is to attempt to solve educational problems of cultural groups. The program would also provide teachers in multicultural classrooms with better human relation skills (West, 1986). The three purposes of the paper presentation are:

1. to define multicultural education in an interdisciplinary sense
2. to examine the rationale for the development of multicultural education programs and ways by which these can be implemented in conjunction with other content areas such as anthropology, sociology, history, and psychology.
3. to provide opportunities for teachers, faculty, and administators to appraise different situations involving effective utilization of multicultural education strategies.

Commitment to Multicultural Education for Teachers

Schools and institutions for teacher education should be deeply involved and committed to multicultural education. A laudable goal of American educaiton is the promotion of the development of a worthy American culture (Ikenbury, 1976) and the provision of equal educational rights to all persons without regard to race, religion, national origin, ancestry, sex, physical handicaps, or lifestyle preference. This noble goal is a recognition of the cultural pluralism and ethnic diversity which exists at institutions of learning in the nation. The commitment to cultural pluralism must "permeate all areas of educational experience" to which educators are exposed (AACTE, 1972).

Rationale for the Program and Program Need

The focus on multicultural education has been to increase teacher awareness about cultural similarities and differences that students possess. A state of mere awareness is not sufficient. Multicultural education must endeavor to inculcate in teachers and others a recognition and acceptance of these similarities and differences.

The stressing of multicultural education is due to the increased number of blacks and other minorities attending predominantly white institutions since 1954. Despite this progress in integration of schools, "subtle forms of discrimination" still exist and many "minorities begin to wonder whether they really belong"(Evans, 1986).

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It must be understood that students of other ethnic origins also experience some discriminatory practices. According to Evans (1986), discriminatory acts against others may be the result of students' and teachers' ignorance of other cultures or their internalized misconceptions about others. Many teachers, faculty and administrators believe that the situation can be improved with increased interaction with minority students in majority institutions.

The attainment of knowledge and experience with effective learning techniques is a major objective of all teachers. Certainly, ignorance of other cultures, which ultimately leads to the minority student's alienation and lack of self-esteem, is not part of such an objective. This paper contends that aiding interaction among students and increasing the knowledge of cultural pluralism calls for the introduction of units with multicultural concepts in such areas as anthropology, sociology, history, social studies, psychology and English.

Many teacher education institutions have established regulations for its preparation of quality teachers. Graduates of these institutions' teacher education programs are recruited for classrooms in the states nationwide. These teachers are bound to meet situations where children come from different cultures from that of the teachers. Differences in student's behaviors and attitudes can be found in different subject areas. Teachers must be able to interpret these behaviors and attitudes appropriately. The classrooms contain students with cultural traits inherent in specific ethnic, religious or racial groups. The traits may be related to sex roles, the way authority figures are treated, and acceptable ways of expressing emotions (West, 1986). The teacher needs to know the general beliefs concerning individualism and competition for particular cultures.

Another important aspect of multi-cultural education is that it teaches the teacher to be aware of different students' perceptions of certain concepts which may be determined by dominant locale. For example, rural children perceive space differently from urban and suburban children. Other concepts which people may have varrying interpretations about are noise, attitudes towards strangers and mores. Teachers who live in locales different from those of the students they teach may have difficulty communicating with them as a result of these differing perceptions.

Still another major point that teachers should be aware of is the students' social class. Teachers often eroneously generalize some students' behaviors as being concommitant to the social class of the students. It is not necessarily true, for example, that poor blacks or lower-class people are disruptive and low-achieving; or that whites or middle- and upper-class people are hardworking and have high aspirations. The teacher must recognize, however, the established concepts of time, cultural values, noise and crowding among lower-class people.

The preceding points have great implications for teacher education and give credence to the desire to establish a sound multicultural education program for preservice and inservice teachers. In order to broaden preservice and inservice teacher training, three stages of multicultural education must be embarked upon (Grant, 1975; Battle, 1975). These are the awareness stage, the appreciation stage, and the affirmation stage. The responsibility for the accomplishment of this task is not just for teacher educators alone but should be the concern of those in other disciplines who are committed to excellence in education.

The issue of excellence in education is the latest on the minds of most educators in particular and Americans in general. Since the publication of the report by the National Commission on Excellence in Education titled A Nation at Risk, those who are charged with the training of teachers and the promotion of effective teaching have stepped up their programs in order to produce the most competent teachers. For the preservice teacher, and ultimately the inservice teacher to be totally effective, he or she must understand both the cognitive (knowledge) and the affective (cultural awareness) dimensions of multicultural education. One way of doing this is by understanding the behaviors of the diverse students that can be found in the classroom.

Recent research is in support of the notion that certain aspects of classroom situations which affect student achievement are related to cultural diversity. Masden and Stewart (1985) have produced evidence to show that students' race appears to consistently influence students' responses to school or classroom situations. For example, when asked what person students would sit beside or have as a good friend or would be a leader, white students were "more tolerant" than black students. Whites were also more tolerant when situations involved the color of the skin and children who were poorer than they were. The existence of these situations cuts across all disciplines.

At this point, it might be necessary to reiterate the conviction that multicultural education programs are designed for those who believe that there are other cultures in other regions of the world besides their immediate environment; who believe that cultural diversity is committed to democracy; and those who believe they belong to a link in the world chain of world cultures (Pratte, 1983). The programs are definitely not for a particular group, race or minority.

People often think of multicultural education as that aspect of education which emphasizes ethnicity, or civil rights and adjudication of past injustices. It is more than that. It is a process which stresses an understanding of the concept of culture and how this concept can be used for greater achievement in a pluralistic society (Payne, 1983). This understanding can be brought about through an integrated curriculum approach and by strengthening the knowledge domain (Battle, 1975) or what Gordon (1985) called the "academic base" of teachers. In support of this view, the Holmes report (Jacobson, 1986) recently called for greater emphasis on the liberal arts rather than the psychological component of teacher education.

It is sometimes doubtful whether educators are unaware of the need for multicultural education. Might the possession of the multicultural education phobia not be due to a notion by teachers that attempting multicultural education would lower their status? Indeed this should not be so.

There may be a tendency for those who oppose the introduction of multicultural education to question the necessity for such a program and to have serious doubt as to the program's workability and implications for teacher education. In order to further clarify matters it might be appropriate at this point to redefine culture and multicultural education. Banks (1977) defines culture generically as consisting of "behavior patterns, symbols, institutions, values, and other human-made components of society." He mentions the existence of such subcultures as the Black culture, the Southern culture, the Bohemian culture, the culture of the intellectual community, the female culture, and so on. Thus in an anthropological sense, multicultural education will concern itself with the educational problems of all cultural groups within a society.

Should teacher education confine itself to the generic definition of multicultural education stated above? Perham and Helms (1985) and Banks (1977) have said this should not be the case. They stress that teacher education should prepare teachers so as to acquire more democratic attitudes and values, be able to understand the importance of cultural pluralism and hence accept the diversity in ethnicity that exists in the American society, and so as to become knowledgeable about the stages of ethnicity and the implications they have on curricula and teaching.

Objectives of Interdisciplinary Multicultural Education Programs

The statement of objectives adds impetus to the rationale for the introduction of multicultural education programs for teachers. The Department of Professional Studies at Indiana University of Pennsylvania has suggested cogent objectives. It is expected that preservice and inservice teachers should be able to:

1. Exhibit a knowledge of cultural pluralism as a social interaction therapy and multicultural education as an approach to education in a pluralistic society.

2. Identify goals for multicultural education.

3. Recognize six forms of bias that are found in classroom materials and describe ways to overcome those biases.

4. Identify seven principles for making curriculum and instruction multicultural and give examples for using those principles in the classroom.

5. Explain several aspects of teacher behavior that must be addressed if the teacher is providing education that is multicultural.

6. Describe the school climate in a school that positively affirms cultural diversity.

7. Outline a program for further study and development to prepare oneself to work with culturally diverse populations and to teach multiculturally.

These objectives can be accomplished through the general and professional sequences in the various departments at institutions of higher learning. These departments can introduce multicultural education for prospective teachers and others by incorporating multicultural units in the general requirement courses in the departments. For example, Introduction to Anthropology is relevant to multiculturalism because it teaches human adaptations and stresses an analysis of the nature of cultural systems as a method for perceiving and understanding variations among peoples. Many institutions, however, do not cover in Introductory Anthropology such aspects as the place of language in the society, the relation of culture and personality resulting from different child-rearing practices, and a careful analysis of social organization, linguistic ties, cultural ecology, and even mythology. Since these are reserved for majors in anthropology, but are extremely pertinent to multicultural education, those who enter teacher education after the general education requirements are bound to miss such important concepts. Teacher educators should be more than willing to provide input which would help the department in writing a syllabus to accommodate these aspects in an introductory course.

The study of history can also contribute tremendously toward interdisciplinary multicultural education programs. There are aspects of history study which will serve the purpose of multicultural education. These include such aspects as thought and culture, the history of different ethnic groups, and the history of youth and women world cultures. The idea of including courses which purport to cater to these aspects of multicultural education is laudable and highly commendable. However, one must realize that this gesture indicates only the awareness stage unless the frequency with which these courses are offered is increased. Moreover, if students are not history majors, they would never benefit from the immense knowledge that history courses can provide, since they are usually those numbered 300 and above. Certainly an outline can be developed so that the general education history/social studies requirement can include the historical development and contribution of diverse groups in the United States and elsewhere which the courses mentioned above do teach.

The theories of the different stages of human growth and development espoused by Freud, Erikson, Levinson and others (Wilson, 1974) can explain behaviors and attitudes of students. The field of psychology can provide this needed knowledge in such offerings as General Psychology, Developmental Psychology, and Child Psychology. This psychological aspect is necessary because research has shown that there is a relationship between "racial identity attitudes of self-actualization and affective states which appear to be relevant to the racial identification." For instance, Gay (1977) has found that awakening black identity has a positive relationship to "self-actualization tendencies and negatively related to feelings of inferiority and anxiety."

The psychological and philosophical aspects of multicultural education will benefit not only the preservice teachers but classroom teachers and non-teachers as well. Everyone can use the concepts from these courses to enhance interaction among students at institutions of learning and thereby avoid racial conflicts which often are due to ignorance.

Program Implementation

As mentioned earlier the program can be implemented in three phases. The first stage is the awareness stage. This is in the form of general education. The concerned individuals are exposed to multicultural education as it relates to different content areas and they gradually become aware of the need for multicultural education. The positive outcome would be the result of the new knowledge of the diversity in culture that exists in the United States.

As teachers (and preservice teachers) move through professional growth, they would continue to acquire the knowledge of multicultural education that would be built into professional development activities and such courses as School Law, History and Philosophy of American Education, and Child Development. They would also observe and identify the gravity of the problems (if any) posed by the culturally pluralistic classroom. This can be done in the preservice teaching clinical experience for undergraduate students. The inservice teacher can do it by increasing clinical and diagnostic teaching strategies. This is the stage which has been referred to as the appreciation stage.

In the affirmation stage, the teacher, armed with the knowledge of multicultural education, can then begin to practice what has been learned in the awareness and the appreciation stages. While the evaluation of the total program is appropriate at every stage, this last stage particularly deserves a greater self-evaluation, peer and administrator evaluation, and the evaluation by the students. It must be emphasized that evaluation should be both formative and summative. Its effectiveness will depend on the degree and frequency of the feedback provided.

Conclusion

The discussion in this paper has stressed that education that is multicultural needs to start with an awareness state. At this stage both teachers and students are engaged in self-discovery which would increase self-image and self-concept. In this context, a definition of multicultural education should include the recognition and respect for diversity among people; an indication of the value of human dignity and self-esteem; and the preservation of cultural identity (Baptise, 1974). The paper emphasized the expanded definition of multicultural education to include cultural problems faced by women, Blacks, youth, and other minorities.

It was pointed out that in order to enhance multicultural education, programs should be interdisciplinary in nature and incorporate various pertinent aspects from such areas as anthropology, sociology, history and psychology. These various areas can provide instructional materials which serve as a catalyst for the transformation of concepts from theory to practice. Furthermore, the interdisciplinary nature of multicultural education would provide the much needed communication between students and teachers or faculty which can help all people in the recognition and acceptance of the cultural diversity in the American society. It will also aid in our understanding of the behaviors of people with different cultural backgrounds, thus erasing the subtle forms of discrimination that often bring conflicts between people.

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NON-TRADITIONAL PROGRAMS IN A TRADITIONAL UNIVERSITY

Pearl Olson

History and Background

The Adult Degree Program (ADP) currently on the Vermont College Campus of Norwich University was started at Goddard College in 1963. As far as we have been able to determine, we are the oldest low-residency degree-granting program designed for adults in the United States. The Program was and is progressive (some might even say "radical") in design and philosophy, based on assumptions about experiential, student-centered learning as articulated by John Dewey, enriched and embellished by the theories of adult development expressed by Levinson, Kholberg and Perry and the feminist parallels of these theorists as found in Carol Gilligan, Jill Tarule, etc. In May, 1981, the Program was bought by Norwich University, a traditional (some might say "conservative") institution, whose center was the Military College of Vermont, the oldest private military college in the United States. Thus it came to pass that the most progressive and the most traditional of educational entities came together. The now six-year history of that symbiotic relationship may well be instructive for other institutions currently developing non-traditional programs for adults. In this paper I will concentrate on three aspects of the integration: 1. Academic Quality and Faculty, 2. Philosophy and Environment and 3. Promotion and Advertising.

First let me explain that the Program currently has a nine-day residency option where students come to the Vermont College Campus for a nine-day residency where they meet faculty, choose a faculty advisor, draw up a study plan for the semester which they then go home and carry out through the mails under the close supervision of that faculty advisor. At the end of six months, they return to the Campus to evaluate their study with their advisor, and, if they have done what they contracted to do or an equivalent amount, they are given credit for a full fifteen semester hours of college work. We also have weekend options operating both on the Vermont College Campus and at an off-campus site in southern Vermont. In this option students meet about every third weekend during a semester. They take two seminars and

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an independent study. Thus both models are non-traditional and well equipped to take advantage of the high motivation and past learning of adults.

Academic Quality and Faculty

The whole-hearted success of any non-traditional program depends in large measure on the respect of its parent institution. Many non-traditional programs rely heavily if not entirely on the use of part-time or adjuct faculty, rarely taking care to recruit the very best. Not only does this practice have an inherent tendency to exploitation, as with any part-time work with low benefits, etc., but it naturally lends itself to a situation of little respect. I would encourage any non-traditional program to begin with a strong core of highly qualified full-time faculty. We arrived on the Vermont College Campus with a team of six experienced, well credentialed core faculty with a combined experience of more than fifty years of full-time teaching of adults in an alternative setting. All of these faculty are now tenured, four full-professors and two associate professors. Twice a year I collect all the recent publications, awards, presentations of my faculty and see that the list is widely distributed among the traditional parts of the University. It's impressive! Adults are challenging and fun to teach and deserve the best faculty a university has to offer. Adults are demanding as well as inspiring, and those who teach them deserve to be honored and well paid.

Out of disdain for the notion of "teaching" as something like "out of my head, through yours and onto a test paper," we in non-traditional education have invented the notion of "facilitation of learning" rather than "teaching." But out of that has in some cases emerged the notion that a skillful facilitator can facilitate any learning, whether she or he understands or does not understand the material the student is struggling with. Perhaps I am particularly sensitive to this notion since in my area of mathematics it is very clear that if a student is having trouble understanding or is profoundly misunderstanding the concepts of calculus, for example, a facilitator who does not understand the concepts cannot help very much without calling in a genuinely qualified expert. Too often the notion of "facilitator" leads to a noncritical supportive stance that solipsistically leads the student into an unfounded and therefore shaky and unrealistic confidence that utterly dissolves in the face of experience or genuine expertise. This is not education. It is a rip-off, and our students deserve better. They deserve to work with expert faculty with a breadth and depth of knowledge from which they can offer genuine critique and challenge within a supportive framework.

Thus the notion of "facilitator" has evolved into the notion of "mentor," a highly skilled; intellectually, emotionally, ethically and spiritually mature faculty member as this concept has been develped in Larry Daloz's recent book *Effective Teaching and Mentoring: Realizing the Transformational Power of Adult Learning Experiences*. Because such a mentor has learned to be a daring, fully integrated person, she or he can appropriately challenge and support students in their unique individual educational quests to make meaning of their lives altogether. Such a faculty will be respected by the rest of the University.

Part of my job is the orientation of new faculty members. Because of the high motivation and challenge provided by most adult students, new faculty usually begin with enournous enthusiasm and commitment. Then the reality sets in: Because adults are older, have lived longer than traditional aged students, sickness, death and other literal catastrophes are more likely to strike at any moment. Having developed a genuinely warm and supportive relationship with a student, how does a faculty member remain objective about the quality and quantity of academic work being produced? I urge all faculty to avoid the ad misercordam fallacy in dealing with students; the appropriate response for a student in emotional pain is an emotionally supportive attitude, not academic credit. Academic work must stand or fall on its own merit. In the ADP, a student may take up to a year's medical leave of absence and still return to finish a semester's work, but the work must be of genuine college-level quality to be accepted for credit.

Yet the interplay of the academic and the personal continues. While an academic program cannot give credit for simply the fact that a student may be struggling with deep personal problems, yet a student may well use an education to advantage in addressing personal concerns. I have seen many students come to us like Eddie Wright, bowed heavily beneath the weight of his experiences in and after the Vietnam War, leaving the Program having gained through his studies a new sense of his own dignity and pride in the conclusions he has drawn from a reexamination of his experiences and the experiences of other Black Vietnam vets. Whether students are exploring their profession or career, their sexuality, their spirituality, we have created an educational environment for them to raise and explore whatever issues are most important to them.

An area I have found important to educate my faculty about is learning disabilities. An estimated ten to twenty per cent of the population suffers from some kind of learning disability or "brain scrambling." Students graduating from high school today are more likely to have had a proper diagnosis of learning disabilities than those who graduated years ago. Faculty need to understand the difference between a learning disability and a lazy student. We found great understanding and help at the learning skills center established for the traditional university. We cannot expect all faculty to be expert in diagnosing and setting up appropriate programs for students with learning disabilities, but we can expect all faculty to know enough about them to be able to make a referral. We have found that a proper diagnosis and appropriate procedures provide enormous relief for faculty and student alike.

Because non-traditional programs often lead to strong personal relationships with students, the issues around sexual attraction between faculty and student may arise more often and in greater complexity than in traditional programs. Since the power relationsip between faculty and student exists no matter how much we try to reduce that imbalance, the relationship may lend itself to an inherently abusive situation. Formal sexual harassment policy statements are essential. At the same time, people do fall in love, and no one would want to legislate against that. Open discussion of this issue continues in our Program.

In the ADP we use narrative transcripts, not grades. Again, this process was a difficult one for the traditional faculty and especially for the registrar to accept. The registrar is currently in the process of purchasing a microfiche machine to store our narrative transcripts. We encourage faculty to be specific and honest. Traditional faculty looking at these transcripts cannot help but see how genuine and valuable they are, giving far more information about the work and level of expertise of the student than simply a grade of "B" in English 207 could possibly convey.

When the ADP was reviewed by an accreditation team from the New England Association of Schools and Colleges in 1982, they offered not a single criticism or suggestion for improvement, and they gave a whole page of compliments. This speaks well and objectively for the quality of our faculty and the academic work they evoke from students.

Environment and Philosophy

Student-centered learning is not easily adapted to desk-chairs and podium. It took two years for Norwich to fully comprehend that we wanted soft furniture that could be arranged in large or small circles, conducive to the less formal exchange of ideas consonant with our learning philosophy.

Part of the conscious educational philosophy of the ADP involves the uprooting of adults from their traditional support systems and familiar roles to immerse them in a new and educationally challenging environment. Thus both the weekend and nine-day residency options require students to be on campus for some period of time to allow them to genuinely rethink basic assumptions about their lives and themselves. Although this can be somewhat frightening and unsettling at first, the learning communities thus established inevitably evolve a powerful and effective support system for adults in the process of significant change and growth.

From its inception until the present the student body of the ADP has been about eighty per cent women. This means that the faculty must have strong, significant female role models and that all faculty need to be fully informed of the current research (see bibliography) on appropriate educational tasks for women, which may have more to do with connectedness and relationship than with separation, autonomy and power.

Academic credit for learning gained from experiences outside the formal college environment is another process frequently questioned by traditional faculty. For our part, we must not abuse this process. In our Program we require that students write an essay articulating the learning (not just the experience itself), and that essay is examined carefully by at least two faculty members. Although we have pioneered in this process, in the past few months a proposal has come before the Academic Board of Norwich University for a portfolio process that would be used in the traditional parts of the University as well.

Another area where we have influenced the University is in granting college credit for courses and workshops taken at non-accredited institutions. We are very careful about this process, requiring fifteen contact hours and evidence of a properly credentialed faculty for one semester hour of credit. Again, the University is looking into the granting of this kind of credit for its traditional students.

Getting University services: bookstore, snack bar, even the library to be available evenings and weekends is one of the ongoing challenges for non-traditional programs. I have no great insights on this except to say that persistence and patience are essential. Educating the traditional University on these issues is an ongoing process. Insisting that financial aid and registration services be appropriate and available on weekends is not easy. Financial aid forms must often be redone to be appropriate for adults whose parents are no longer likely to be responsible for their finances. All of this must be taken into consideration and appropriately addressed.

Promotion and Advertising

When we were first moved to the Vermont College Campus we were assured that there were seven people recruiting for our Program. By this was meant that the University had seven full-time recruiters who had been informed about us and had been told to add us to their list of Norwich programs when they went out for their recruiting trips, which largely addressed college fairs, high school guidance counselors, etc., an audience not likely to include many adults returning to college. After about a year and a half of dwindling enrollments, we got a full-time adult recruiter, and this year another half-time adult recruiter was added. Recruiting adults going back to colege is a specialized and highly skilled profession. Many of them are women stepping out for the first time from a secure home environment, unsure and afraid. They are frequently spending their own hard earned dollars or incurring heavy loans that they will be responsible for, and they need a great deal of honest assurance and information. Highly skilled admissions counselors are an essential element for a successful adult college program in today's highly competitive market.

Also, for our first year at Norwich we had no advertising budget. Traditional institutions have tended to look with disdain on paid educational advertising, yet that is an important tool for reaching the adult market. After about a year we were given an $80,000 advertising budget. With this budget and appropriate admissions expertise we have stabilized and grown.

Conclusion

About a year after the Adult Degree Program was purchased from Goddard College and moved to the Vermont College Campus, enrollments had dropped to less than ninety students. But then, with persistent effort, Norwich University began to understand and address appropriately the needs of adult students. We have changed, and the University has changed. We have grown from a program with a single model option and less than ninety students to a program with three options with over two-hundred students, including an off-campus weekend site. We have retained our progressive educational stance. I think I can safely say that the relationship has been a successful and satisfying one, well worth close scrutiny for other institutions.

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ASSESSMENT OF STUDENT PROGRESS IN AN INTERDISCIPLINARY LIBERAL STUDIES PROGRAM

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As part of Kentucky State University's revised mission in Kentucky public higher education, the Whitney M. Young, Jr. College of Leadership Studies opened its doors in the fall of 1983. This new college was one of two programs designed to implement Kentucky State University's plan to become the small, unique, liberal studies institution with the lowest student-faculty ratio in the state's system of public higher education. In addition to supporting KSU's main educational objective, the Whitney Young program was also expected to serve two other purposes: 1) to increase the proportion of resident white students on the campus of a historically black institution and 2) to recruit high-calibre students, as determined by high school grades and ACT scores, who would then participate significantly in the general raising of academic standards in the university as a whole.

Early in the conceptualization of the Whitney Young Program, the Great Books curriculum at St. John's College, Annapolis, Maryland was singled out as a model for the new college. Whitney Young students enroll in three core courses amounting to 12 credit hours of study for their first two years in the program and continue with a modified version of these courses in the junior and senior years if they choose to pursue the program's liberal studies major. The foundation of the course of study lies, first of all, in the Great Books seminar which begins with the Greeks in the freshman year and concludes with readings in 20th Century literature and science in the senior year. In order to balance the broader, more free-ranging discussions in the seminar, the Language Tutorials and Math-Science Tutorials direct students' attention to detailed analysis and close textual work. In all three of these classes there is heavy emphasis on students achieving excellence in both oral and written communication in an interdisciplinary environment.

As the program was originally conceived, the academic atmosphere was to demonstrate the educational philosophy of St. John's College. Central to the St. John's learning environment is the de-emphasis, in fact virtual rejection, of traditional grading. Although students at St. John's receive final course grades on transcripts maintained in the registrar's office, they are encouraged to never seek out their class grades. Moreover, students there have commented that a desire

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to know grades is not only discouraged but also is viewed as rather tasteless and crass. The St. John's philosophy maintains that the student's learning *itself* should receive the stress as opposed to the official reports of competence. This sort of learning environment would tend to eliminate students who work only so far as to attain a certain grade or those who make academic progress but who still would be discouraged by a poor rating when "marked" according to traditional grading procedures.

Since the first dean of WYC was a St. John's faculty member on a special two-year leave and since two-thirds of the WYC faculty members were St. John's graduates, the de-emphasis of traditional grading was imposed upon the program from its outset. Within one semester the results of this potentially erosive policy became apparent. First, because Whitney Young College students only take 12 credit hours of work within the college, they still must enroll in some normal university classes in order to maintain a full schedule. The normal grading procedures of general university classes were immediately at odds with the grading de-emphasis promoted by the new program. Students felt "torn" between the two systems. Second, since nearly all of the beginning WYC students were on scholarship, they had no concrete means of determining how well they were maintaining the needed grade point averages for scholarship retention. In general, the WYC courses proved more demanding, for a number of reasons, than most of the basic university classes students were taking. The ease of maintaining acceptable grades in general university courses coupled with the adsence of traditional grading in WYC lulled some students into believing they were doing excellent work in the new program. The Whitney Young College grades received from the registrar at the end of the first semester were less than those expected by some. The result was that some students left the program to seek easier and more clear-cut methods of grading in the general university so as to keep their scholarships. Third, as the Review Committee which evaluated the program in its second year noted, the unorthodox grading practices could possibly have created difficulties for WYC students seeking to qualify for honor societies and prestige, post-graduate scholarships. Thus, the College faced a unique set of problems in the assessment of student progress. In essence, the interdisciplinary, discussion-oriented nature of the program makes a de-emphasis of traditional grading desirable while the general university environment and scholarship requirements plus the students' own grading expectations from past schooling all demand conventional evaluation procedures.

In response to this dilemma, the college faculty members have worked out an evaluation procedure which combines the St. John's approach with the methods of traditional grading. The Great Books seminar, the very heart of the program, primarily emphasizes the student's demonstration of learning and meaningful inquiry through class participation. In contrast with more traditional, lecture-oriented classes where student participation "counts" very little if at all, the student's engagement in class discussion accounts for 50% or more of his final grade in seminar. The class sessions themselves are entirely discussion-oriented; one of the two faculty members who lead the seminar asks an opening question and a far-ranging examination of the literature ensues. Because of the great emphasis placed on verbal demonstration of the student's comprehension, every class is both a learning and evaluation session. In most cases the two faculty members running the seminars have worked out a simple system for marking down the amount of participation exhibited by a student in each class session (i.e., "+" for significant contribution, "✓" for medium, "-" for very little, and "o" for no participation as a whole). Assessment of the quality of a student's performance is more difficult. Since two professors are present to evaluate this aspect, a more objective assessment of the calibre of a student's comprehension and inquiry is possible. Faculty members may keep weekly notes, mark down significant changes in performance, or confer informally with the seminar co-leader on his evaluation of a particular student's work. However, by midterm each co-leader usually has a rather solid understanding of the quantity and quality of a student's participation in class. The faculty members then test and accordingly modify their own evaluations of the student's progress by scheduling a 30-minute, intensive oral examination for each student. This test is administered jointly by the seminar co-leaders and gives them the opportunity to investigate the student's strengths and weaknesses which may not be apparent from mere participation in class. Questions may range from a few simple identifications to verify assignment completion to those requiring broad analyses, comparisons, and demonstrations of critical thinking. Between themselves the faculty members determine grades for the oral exam and the mid-semester participation of the student in class and merge the two into a single midterm grade. A jointly assigned mid-semester grade is then available to the student who may request the grade from his instructors or ask the dean of the college for the information.

This same procedure is repeated for the second half of the semester, but in addition to the evaluation of class participation and the final oral exam, the student's progress is assessed even further by his submission of a seminar essay when the semester is about two-thirds complete. The paper is to express the student's best effort at coming to terms with an issue in one or more of the books read in seminar. It is not a traditional term paper; no secondary sources are used. Rather, the student engages in a detailed analysis of some topic which demonstrates his critical thinking, originality, and clear comprehension of basic issues and supportive evidence in a seminar reading. The student receives copies of his paper with extensive comments from both seminar professors, and if needed, he has the option of rewriting his paper for reconsideration of his performance. For the most part, the quality of thought a student exhibits in his seminar paper parallels the calibre of his discussion and oral exam performances.

Thus, about 50% of the seminar grade is based on performance in class with the other 50% derived from two oral exams and the seminar essay. As a result, 70-80% of the student's final grade is based on verbal demonstration of his comprehension. This emphasis is one reason why frequent traditional grading is discouraged. Issuing weekly class participation grades in the same fashion as conventional quiz, homework and test grades would be difficult and myopic at best. The general midterm grade gives the student some concrete idea of his performance in seminar before it is too late for him to do anything about classwork that would yield an unacceptable final grade. This procedure has helped to control the problems experienced during the first semester of the WYC program when students only received a final class grade. Moreover, it also stresses the fact that the faculty members consider the actual learning a student does to be the issue of primary importance as opposed to the earning of a letter grade. First and foremost the students should complete a seminar with comprehension of the material and with the ability to express that comprehension verbally and in writing.

Although two traditional grades are awarded to the student at midterm and the end of the semester, the most effective means of evaluation the student receives in WYC involves no grading at all. St. John's College holds formal oral conferences called "don rags" at the conclusion of the semester in order for tutors to comment specifically on the student's performance in his classes. This same procedure was established for WYC, but like the final class grades used alone during the first semester of the program, the end-of-the-term conference provided no benefit for students concerned over semester grades for scholarship retention. Therefore, in the second semester of the program the faculty decided to shift the scheduling of don rags to the week immediately following the midterm exams. With this change the use of such conferences to provide students with detailed feedback as to their overall academic performance has been uniquely successful. All of the student's WYC professors are scheduled for a 15-20 minute evaluation session with the student. One by one the seminar, math-science, and language tutorial professors give an evaluation of the student's performance in class to the other professors. The student is, at first, in the position of "overhearing" this discussion of his strengths, weaknesses, and suggested means of improvement. The language tutorial professor fills out a formal conference report form for the student's permanent advising file and notes the details of the student's performance in each class. Next the student is asked directly about his own evaluation of his progress in non-Whitney Young classes. Finally he is encouraged to respond to the criticisms he has heard and to ask pertinent questions. Time and again this collaborative analysis by instructors has accurately pinpointed the trouble spots in a student's personal development. The constructive criticism not only helps the student but also in turn helps the instructors to better guide the student. The don rag itself is a fine example of the close working relationship between student and teacher which ultimately proves so profitable to both. Scheduled in mid-semester these conferences in conjunction with the availability of mid-term grades provides students with an in-depth understanding of their academic progress without undue emphasis on a mere letter-grade.

As noted above, the don rag gives the student an assessment of his work in all of his WYC classes. Even though general trends in a student's overall performance become apparent during the conference, the type of evaluation the student receives concerning his work in the Math-Science Tutorial and Language Tutorial differs somewhat from that relating to seminar. First, the focus of the tutorials is on detailed analysis and close textual reading. Second, both classes require more writing and individual effort on the part of the student. In the Language Tutorials the pupils study Greek language, English composition, logic, rhetoric, the development of English language, English lyric poetry, and literary genres. Approximately 50% of their grade is based once again on oral participation in class. The other half is based on detailed written work. In Sophomore Language, for instance, the students are required to write five or more in-depth analyses on topics arising from literature covered in language class or seminar. Whenever possible the language readings and discussions are related to those in seminar. The 4,000-6,000 word writing requirement takes the form of both in-class essays and those prepared out of class. Papers are returned to the students with detailed comments and suggestions for improvement. To emphasize the importance of the student's correction of errors and the problem areas in his writing by paying close attention to the professor's comments, no grades are given, only detailed comments. This feedback is enhanced by the scheduling of paper conferences so the professor can discuss the student's writing problems on a one-to-one basis.

In the Math-Science Tutorials the oral participation which comprises a large portion of the student's grade is again based on detailed analysis and demonstration of comprehension. However, in this class the student's participation takes the form of demonstrating mathematical and scientific proofs at the blackboard before the entire class. For instance, in the freshman math-science course, students work through the proofs in a number of the books in Euclid's *Elements*. They demonstrate their understanding of the fundamental principles and basic logic underlying the proof by going to the board and giving their own presentation of the proof without use of the book. By asking questions, providing clarifications, and correcting errors, all of the students collaborate in an intensive learning environment geared to focussing attention on detail, underlying principles, and general concepts. Written work in math-science classes varies from a simple explication of a geometric axiom to a detailed, comparative analysis paper of 5-10 pages. Depending on the particular math-science class, oral exams may also be scheduled at midterm and at the semester end to verify more precisely the student's comprehension of the material.

The assessment of student progress in the Whitney Young interdisciplinary liberal studies program has thus gravitated to an unusual blend of non-traditional and traditional evaluation procedures. Unlike most normal university classes, heavy emphasis is placed on excellence in oral communication in addition to written work. Individual student participation in class, detailed oral examination, and demonstration of proofs all provide a basis for the teacher's evaluation of the student's progress. Written work receives extensive commentary by the professors with the student's option for rewriting the assignment. The awarding of mid-semester grades gives students the information necessary for maintenance of high grade point averages which affect scholarship retention and academic honors without overstressing grade consiousness. The midterm don rags then provide the students with detailed assessments of their work in all Whitney Young classes and profitably identifies general problem areas for students and professors alike. The evaluation procedure utilized by the faculty of the Whitney Young College of Leadership Studies is one example of the unique liberal studies environment Kentucky State University is developing as it implements its new mission in Kentucky public higher education.

GUIDELINES FOR NON-TRADITIONAL INTERDISCIPLINARY CURRICULA

Donald B. Pribor

The mechanistic perspective of modern science and technology provides the basis for an interdisciplinary curriculum of sorts. Mathematics, physics, chemistry, engineering, and biology are well integrated. For example, molecular biology/genetic engineering requires the integration of all these disciplines. Furthermore, if one thinks of any human merely as a complex, information processing machine, then the social sciences and many aspects of the humanities become components of a mechanistic vision of reality. However, for those of us with a more holistic, aesthetic view of reality, exclusively mechanistic interdisciplinary curricula are totally inadequate. This paper describes mechanistic education, the inadequacy of returning to a traditional liberal education, and guidelines for developing a non-traditional liberal education.

MECHANISTIC EDUCATION

Since the turn of the century, colleges and universities have moved from teaching institutions grounded on a liberal education toward becoming information factories. The core idea of the education factory mentality is information processing. Knowledge is thought of as autonomous bits of information which can be processed to produce higher levels of information. In addition, education factories consist of autonomous specialists who do research and/or teach. As researchers, the specialists process information to produce new knowledge. As teachers, they process information in order to transfer it to others. A curriculum organizes the impersonal transfer of information from a stable faculty to an assembly line of students moving through the knowledge factory. The information specialists do not have to know one another -- let alone talk to one another, and autonomous students are individually processed. An elaborate bureaucracy integrates faculty, curricula, and students.

TRADITIONAL LIBERAL EDUCATION

Traditional liberal education (first formulated in Athens between 600 - 300 BC), affirms the dominance of analytic-synthetic thinking over all other ways of obtaining knowledge. The Greeks were the first people to clearly

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distinguish between religion and mythology on the one hand and rational theories independent of any sacred authority on the other. That is, the Greeks invented the following game: one may make whatever set of outrageous, non-conventional, anti-traditional statements one wishes so long as one follows two rules: 1) the statements must be logically consistent; 2) the statements are held to be true as a result of explicit criteria for establishing truth. Other players of the game may agree with these statements or point out logical inconsistencies at which point the game is ended. The game is much more challenging, however, when it perpetuates itself -- one player argues against the opponent's statements; the opponent produces counter arguments to these statements, and so on.

The analytic-synthetic approach to knowing is to: 1) *analyze* a thing or process, i.e., imagine it to be composed of subunits; 2) describe the properties of the subunits; 3) describe how the subunits interact; and 4) make a *synthesis*, i.e., describe the whole thing or process in terms of the interactions among its subunits.

The mechanistic perspective of modern science modifies the Greek rational game by insisting that all theoretical explanations: 1) can be translated into *operational terms* (terms defined by a process which will lead any two or more people who correctly perform the process to have similar sense perceptions); 2) relate to empirical information; 3) state how *autonomous* subunits interact; and 4) are held to be true as a result of "public consensus of truth" which usually involves experimental prediction and/or lack of falsification. In many ways this modern knowledge game undermines traditional liberal education. For example, theories about existence, beauty, good, values, soul, and other similar ideas cannot be translated into operational terms. Moreover, the validity of religious, philosophical, and aesthetic theories does not depend on public consensus of truth.

The tradition of liberal education not only precedes mechanistic science, but many of the core ideas of this tradition are incorporated in modified form into modern science. For example, analytic-synthetic thinking still is the dominant mode of knowing, but now it involves dividing things or processes into *autonomous* subunits so that any whole is *totally* understood in terms of interactions among autonomous parts. We cannot go back to the liberal education tradition without ignoring one of the pillars of modern culture which is modern science/technology. For better or for worse we posses our Greek cultural roots only as contained in modern culture. We possess Greek humanism primarily as scientific humanism.

Thus, since current mechanistic education is inadequate, we need a new vision which integrates the ideals of liberal education with scientific humanism. Various insights of the 20th century point to a theme which could invoke this new vision. The emerging 20th century theme is contextual knowing wherein context influences what and how knowing occurs. For example, in one context, analytic-synthetic thinking dominates; in another context, experiential knowing dominates, and in still other contexts conceptual and experiential knowing are coequal and complementary. One formulation of this new vision is a communication perspective which may provide a basis for developing a non-traditional liberal education appropriate for the 21st century.

NON-TRADITIONAL LIBERAL EDUCATION

It may be shown that a communication perspective invoked from the theme of contextual knowing implies guidelines for developing a non-traditional liberal education. Rather than describing this theoretical foundation, these guidelines will be stated and exemplified in terms of a specific course, "Psycho-physiological Understanding of Stress." Non-traditional liberal education curricula could be developed from these guidelines in a similar manner.

Guidelines.

Both Greek and scientific humanism imply that conceptual knowledge which always results from analytic-synthetic thinking has value in itself. Furthermore, conceptual knowledge gives pattern to and therefore dominates experiential knowledge which always involves communication with individual, concrete things or events. To the contrary, the theme of contextual knowing implies that conceptual and experiential knowledge are interdependent; each has value only in relation to the other. Therefore, to teach students concepts that are foreign to what a person has experienced or is ever likely to experience is a total waste of time. Likewise in the context of a liberal education it is a waste of time to lead students through experiences which they do not critically examine, i.e., subject to analytical-synthetic thinking.

This insight may be formalized into the following curricular guidelines. 1) Conceptual knowing involving rational awareness should be integrated with experiential knowing involving feeling awareness. 2) Faculty should identify a common core of ideas that relate to a common core of experiences which students have had or are likely to have in the future. This common core of ideas and experiences will be influenced by such factors as type of institution, nature of student body, location, and other cultural considerations.

Integration of conceptual and experiential knowing further implies that teachers do not merely transmit nor do students merely receive so called "objective knowledge." Rather the teacher describes his/her experientially grounded set of ideas to students who incorporate these ideas into their experientially grounded understanding of the world. This insight implies more guidelines. 3) The teacher should describe his/her intellectual story, i.e., ideas that relate to a single theme rather than merely state a collection of ideas. In response, the student should understand the teacher's story and use it to modify the student's perception of the world according to his/her needs. 4) The teacher should be a facilitator rather than a dispenser of knowledge, and the student should take responsibility for his/her own learning rather than merely be a receiver of knowledge. 5) The student should write essays which describe his/her intellectual story based on, but by all means not identical to, the teacher's story.

Not only should conceptual and experiential knowing be integrated but they should reciprocally influence one another. New conceptual knowledge may direct a person to "see" the world in a different way thereby destroying one's old and sometimes cherished perceptions. New experiential knowledge may falsify one's conceptual knowledge thereby forcing a person to create a new conceptual model of the world. Applying this insight to education suggests two more guidelines. 6) The teaching/learning process should cause students and sometimes teachers as well to reevaluate and reconstruct their "knowledge stories" to incorporate new ideas and new life experiences. 7) The teaching/learning process should entail both suffering and exhilaration because both teacher and student enter the learning transformation spiral of order --> chaos --> new order which incorporates a modified version of the old order. New learning in partially destroying the old ways of understanding brings suffering to the student and suffering to the teacher who must empathize with the students' struggles in order to facilitate their learning. When students experience the transformation to a new understanding, both students and teacher experience exhilaration.

Non-traditional Liberal Education Course.

The course, "Psycho-physiological Understanding of Stress", illustrates guidelines for designing a non-traditional liberal education course. This course is interdisciplinary as well, but not all liberal education courses need to be, though the curriculum as a whole should be. Concepts from human physiology, psychology, and sociology are related to a person's stress response resulting from a challenge to his/her psychological well being.

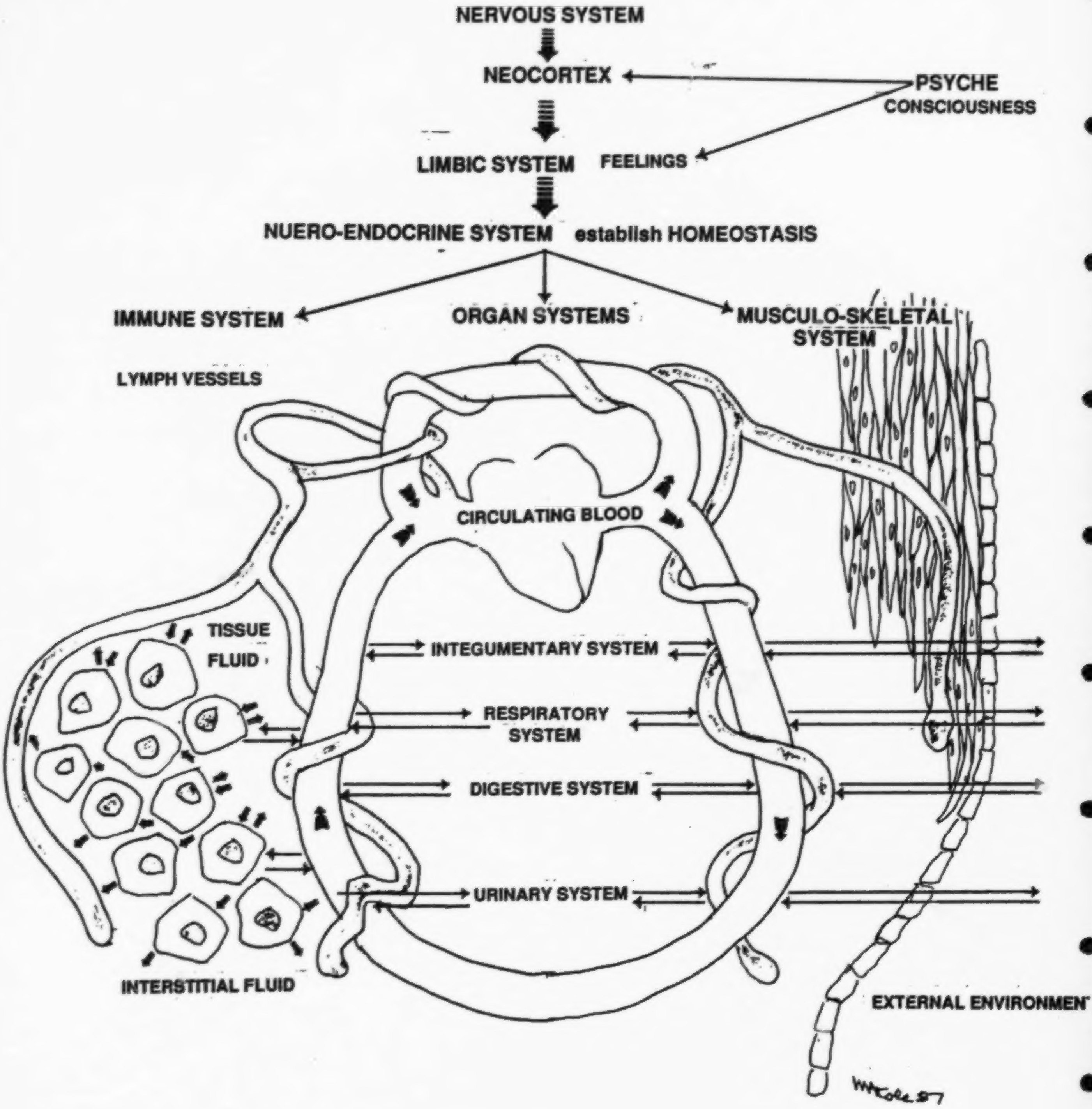
The core ideas and experiences. 1) Human physiology. The human body consists of trillions of cells each surrounded by tissue fluid which supports cellular life. Each cell continually pollutes the tissue fluid and depletes it of nutrients. Circulating blood continually reestablishes the life supporting properties of tissue fluid, but in doing this, the blood is polluted and depleted of nutrients. Four organ systems -- integumentary, respiratory, digestive, and urinary systems -- carry out exchanges between the external environment and the blood resulting in the reestablishment of the blood's life supporting properties. The lymphatic system removes excess water and debris from the tissue fluid, and the immune system in conjunction with the lymphatic and circulatory systems removes foreign substances.

In a cyclical process called negative feedback regulation, the neuro-endocrine system interacts with all other organ systems to establish homeostasis in which various properties of the body, e.g., blood pressure, muscle tone, are kept at near constant values. A portion of the brain called the limbic system is associated with the experience and expression of feelings which provide the connecting link between the psyche (consciousness) and body homeostasis,see fig. 1.

The concepts of human physiology as well as the application of these ideas to explaining a stress response (an expanded General Adaptation Syndrome) is described in the book: Functional Homeostasis by Donald B. Pribor (Dubuque, Iowa, Kendall/Hunt, Pub. Co., 1986)

2) Psychology. Feelings are not equivalent to emotions but rather are emotions associated with subjective orientations or dispositions toward objects. In particular, feelings have perceptive, experiential, and expressive aspects. The perceptive aspect is an animal's imagination of his/her orientation (intention) to some aspects of the environment which often is some other animal. The experiential aspect is that feeling orientations always are associated with direct or remembered experiences of pleasure or pain. The expressive aspect consists of the animal's: (1) change in the pattern of muscle tone, (2) physiological arousal, and (3) specific, chosen behavior.

Psychological stress which can cause or contribute to an illness consists of chronic intense feelings or chronic unresolved feelings. An unresolved feeling is one in which the behavioral expression of the feeling is repressed so that the change in muscle tone and the physiological arousal that prepare the animal to carry out this behavior are sustained. Chronic psychological stress may be subdivided into autonomous individual stress (A.I.stress), process individual stress (P.I.stress), and societal individual stress (S.I.stress). A.I. stress is due to autonomous events, e.g., exhilaration of achievement or being rushed


NERVOUS SYSTEM
NEOCORTEX
PSYCHE
CONSCIOUSNESS
LIMBIC SYSTEM
FEELINGS
NUERO-ENDOCRINE SYSTEM
establish HOMEOSTASIS
IMMUNE SYSTEM
ORGAN SYSTEMS
MUSCULO-SKELETAL SYSTEM
LYMPH VESSELS
CIRCULATING BLOOD
TISSUE FLUID
INTEGUMENTARY SYSTEM
RESPIRATORY SYSTEM
DIGESTIVE SYSTEM
URINARY SYSTEM
INTERSTITIAL FLUID
EXTERNAL ENVIRONMEN
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and over-worked, which invoke intense or unresolved feelings. P.I. stress is due to the chaos of a life transition such as going from puberty to young adulthood. S.I. stress is due to being in a society which is undergoing a major transition, e.g., divorce or death in a family or transition from an industrial to an information society.

The course briefly summarizes various strategies for dealing with A.I. stress. A greater emphasis is placed on life --> death --> rebirth process (L-D-R process) as a way of dealing with P.I. stress. Life represents the situation where ego feelings and/or passion are integrated with reason and order prevails over chaos. Death represents the situation where ego feelings and/or passion are opposed to reason and chaos prevails over order. Rebirth represents the situation where there is the reestablishment of integration of ego feelings and passion with reason and a new order prevails over chaos. These ideas are described in a somewhat different way in the book: Transitions by William Bridges (Reading, Mass., Addison-Wesley Pub. Co.,1980).

3) Sociology. The book: The Minimal Self (Psychic Survival in Troubled Times) by Christopher Lasch (New York, W.W. Norton & Co., 1984) is used to describe S.I. stress. Various selections of music are used to illustrate some of the major themes in this book.

Facilitation of learning. All the core ideas are explained in lecture/discussion sessions, but the students are expected to use these sessions plus references to create their own understanding of the ideas. Furthermore, the students are expected to integrate these ideas with their life experiences. To facilitate this, the students are required to write an essay on each of the three kinds of psychological stress.

The paper on autonomous individual stress (A.I. stress) should include: the physiological stress response in terms of the body's homeostasis and the mechanisms that regulate it, the psychological aspects of stress from intense feelings, and the specific occasions and symptoms of the student's personal stress response.

The paper on process individual stress (P.I. stress) should describe the student's experience of a former life style which came (or is coming) to a gradual or abrupt end-- the chaos -- and the rebirth (or possible rebirth) of a new life style.

The paper on societal individual stress (S.I. stress) should confront the major thesis in Lasch's book, Minimal Self, and choose and support a particular explanation of it. Pribor's interpretation of Lasch's thesis is that in Western cultures stable patriarchal societies have become very unstable. For example, Western societies and all its institutions are dominated by modern science which is a major extreme expression of patriarchal thinking. The current science based educational systems are judged by some to be unstable.

There are at least three major interpretations of this societal instability. The first interpretation is that the instability is part of a normal cycle in which either we will return to a stable condition or we will make modifications which will enable us to return to a modified stable order. The second interpretation is minimalism which is expressed either as fundamentalism or as apathy. Fundamentalism is an extreme version of patriarchy in which most people allow authority figures to tell them what to think and to do. A return to traditional liberal education or to educational values of the 1950s are examples of fundamentalism. Apathy is the mental state of giving up; the individual (or society as a whole) just tries to survive on a day-to-day basis. The third interpretation is that the current instability is the death phase of a major transformation from a patriarchal to a non-patriarchal society. The new vision of liberal education discussed in this paper is one aspect of this transformation.

The Life-Death-Rebirth learning spiral. The students in this course were given the opportunity to undergo three major learning transformations. All students who successfully wrote the three essays did undergo these transformations to some degree. One transformation involved a new awareness of autonomous stress in an individuals life and how this is causing or could cause illness. The second transformation involved the personal insight that past, present, and future crises with all the accompanying chaos and suffering may be occasions for creating new, more fulfilling visions of life. The third transformation involved a new awareness and opinion about the apparent chaos in Western societies. As indicated by their essays, the students experienced mental/emotional pain -- sometimes quite intense -- as well as exhilaration.

The learning transformation spiral is a special case of the creative process represented as a Life-Death-Rebirth process. The following guidelines for writing a paper on personal transformations summarizes many of the ideas of this process. (Quoted material from: William Bridges, Transitions (Reading, Mass.: Addison-Wesley Publishing Company, 1980), pp 141 - 150

I. LIFE: AN ORGANIZATION PATTERN THAT WORKS IN A PARTICULAR CONTEXT

II. DEATH

A. Ending[1]

1. Disengagement
2. Disidentification
3. Disenchantment
4. Disorientation

B. The Neutral Zone[2]

1. Surrender -- embrace the death
2. Neutral zone activities

III. REBIRTH: MAKING A BEGINNING

A. "To make a successful, new beginning, it is important to do more than simply persevere. It is important to understand what it is within us that undermines our resolve and casts doubt on our plans."

B. "Genuine beginnings begin within us, even when they are brought to our attention by external opportunities. It is out of the formlessness of the neutral zone that new form emerges and out of the barrenness of the fallow time that new life springs. We can support and even enhance the process, but we cannot produce the results. Once those results begin to take shape, however, there are several things that can be done."

1. Stop getting ready and start doing something.
2. "...begin to identify yourself with the final result of the new beginning."
3. "Take things step by step and resist the siren song that tells of some other route where everything is exciting and meaningful."
    a. "In any important new beginning, a preoccupation with results can be very damaging."
    b. "Instead of seeing each attempt at achieving a goal as 'shots at a target (damn, missed again!)', view them as elements in a comprehensive process. Each attempt will teach a person something or create a new contact or deepen one's understanding of his/her -self."
4. "...diffuse your purpose and transfer it from the goal to the process of reaching the goal."

C. Inner Side of the Transition Process: "Even though the external 'new beginning' may happen very quickly once it becomes evident, the internal identification and engagement occur more slowly."

D. "When the neutral zone has done its work, you come back."

1. "Socially, this means that the isolated person

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[1] William Bridges, *Transitions* (Reading, Mass.:Addison-Wesley Publishing Company, 1980)

[2] Ibid.

returns from the disengaged state and the wilderness to set about translating insight and idea into action and form."

2. "Psychologically, the process of return brings us back to ourselves and involves a reintegration of the new identity and elements of the old one."
3. "This aspect of the beginning is as natural as the disintegration was back in the termination phase. Inwardly and outwardly, one comes home. As a wonderful Zen saying expresses it, 'After enlightenment, the laundry."
4. In summary, coming back means
   a. re-engagement
   b. re-identification
   c. re-enchantment
   d. re-orientation

MERCY COLLEGE'S PROGRAM FOR THE REINFORCEMENT AND INTEGRATION OF DEVELOPMENTAL EDUCATION (PRIDE)

LYNNE M. ROSENTHAL

PRIDE represents Mercy College's effort to meet the needs of its non-traditional students by providing support systems and an interdisciplinary approach to remediation. The goal of this approach is to mainstream the academically disadvantaged student as quickly and effectively as possible, and to ensure, in the words of President Wilbert J. LeMelle, that all students in the communities we serve have access to quality education and to the support services that enable them to develop and strengthen the skills necessary for success in college and beyond.

A private four-year open admissions institution with a population of about 10,000 and six locations in Westchester and the Bronx, Mercy College is known for its innovative spirit and ability to pass on the liberal arts tradition to diverse populations. It was within this innovative spirit that the program was developed under a Title III Grant in 1979 under the administration of Dr. James Melville, formerly Dean of Academic Affairs and currently Dean of Graduate Studies and Research, and that James Brennan, Director of the Grant, and I, as its Coordinator, met in the summer of 1980 with representatives of the departments of English, Education, Mathematics, Speech, Psychology and Philosophy to assess needs of students across the curriculum and establish areas where faculty could work together to help students reinforce and integrate active learning strategies and develop transferable skills.

The Students

The students whose needs we sought to address, were, in most cases, first generation college students, over 21 years of age, who had not finished high school or had been away for a period of time. Most were seeking education against incredible odds of family problems and obligations, a history of academic failure and a generalized sense of low self-esteem. Many had ESL interference as well. As might be expected, the skill levels of these students were low, not only in reading, writing and computational skills, where they often tested well below the 10th grade level, but in an overall ability for clear thinking and familiarity with the cognitive strategies necessary for success across the college curriculum and beyond. PRIDE was developed as a direct response to all of the needs of these students, and was predicated on the premise that it is the College's responsibility to help students develop basic cognitive skills, strategies for learning, and an understanding of process. Thus, in setting up the Program, our goal was to develop an interdisciplinary format that would enable us to educate holistically.

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Mercy College's Program for the Reinforcement and Integration
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The result was the creation of a new developmental curriculum including skills and content courses, extra classroom time, a core faculty which meets regularly to reinforce and integrate course content across the developmental curriculum, and built-in tutoring and counseling services. Beginning in 1980 with 40 students at two of Mercy's six locations, by 1982, the Program had expanded to four locations with 300 students per semester and a passing rate of well over 60% among high-risk students enrolled in courses (in 1985-86, the passing rate ranged from 65-78%). The Coordinator of the Program had been appointed Assistant Dean for College Skills/PRIDE, and PRIDE, now an integral part of the College and fully supported by it, had been consolidated with the Office of College Skills, which administers placement and tutoring, thus providing centralized, effective service to students at all levels of their college experience.

Program Components

1) Testing and Placement: Students entering the College are tested in reading, writing and mathematics. Those with weakest skills are placed in one of two levels of non-credit developmental courses in those three skill areas; these courses meet three times a week to give students time to reinforce learning, and offer four non-degree credits. Students placing in more than one skills course across the developmental curriculum are designated PRIDE students, and, if they require or wish to enroll in an additional course, are also placed in appropriate credit courses which tend to bolster skills while offering the challenge of college content and contact with non-PRIDE students. These courses include Philosophy 100 (Effective Reasoning), Psychology 100 (Critical Readings), Psychology 119 (The College Experience) which includes a study skills component, and Speech 100 (Fundamentals). Students in the Curriculum enter the mainstream of the College at different points, depending upon ability, and may, after one semester, having passed the exit exams in skills courses, be enrolled in several non-developmental courses and in one or no skills courses.

2) Core Faculty: PRIDE students have the benefit of a core faculty which meets monthly with the Director of College Skills/PRIDE at each location in order to

a) monitor student progress—instructors share information about student needs with one another and with counselors and academic advisors who attend meetings as well

b) share teaching techniques and course materials--instructors develop and demonstrate teaching techniques in order to share effective approaches

c) reinforce and integrate course materials—instructors work together to identify skill areas that need strengthening and to plan joint lessons to reinforce these areas

The fact that the core faculty is rooted in the departments helps students understand that there is continuity in skills development, and that they can learn the strategies required to succeed in elective as well as in skills courses. PRIDE instructors have included adjuncts, full-time faculty, counselors, advisors and administrators. A section of the Philosophy 100 course was, during the Program's first year, taught by Dr. Ann Grow (then Chairperson of the Philosophy Department and now Vice President of

Administration), whose stress on the interrelationship of effective reasoning, comprehension and writing skills helped set the tone for the entire curriculum.

Indeed, the core faculty, with its interdisciplinary team approach in which skill strengths and weaknesses are seen as interrelated, is the key to the Program's success. The central issue addressed by the faculty throughout the years has been the need to help students develop transferable skills and take responsibility for their own motivation and success at the College. Among the varied projects the faculty has engaged in to meet these objectives are:

a)student self-assessment project--to help students assess and maintain responsibility for their own academic progress, faculty developed instruments including written mid-term evaluations from faculty to students, student-teacher contracts and self-assessment graphs on which students plot scores on tests and attendance in courses

b)PRIDE orientation--to introduce the Program and the skills which will be reinforced in courses across the curriculum, orientation workshops have been conducted by faculty, counselors and staff at each location at the beginning of the semester. These workshops have focused on listening/note-taking, test-taking and motivation, all utilizing group process and materials developed by the core faculty. Keynote speakers from the business and professional world and the President of the College have addressed students, speaking on the relationship of motivation and basic skills to academic and professional success. In addition, at each workshop, former PRIDE students have spoken about their own experiences in overcoming obstacles to success and have led discussions of effective learning strategies.

c)listening/note-taking lessons--to help students develop and reinforce these important skills, faculty created a collection of classroom exercises to be utilized in each course in conjunction with the listening/note-taking workshops held at the PRIDE orientations

d)academic lexicon--to clarify academic terminology used in each discipline, a PRIDE sub-committee, chaired by Fred Akamine of the Philosophy Department, and including Marcy Alkaly (Mathematics), Frances Biscoglio (English), James Brennan (Psychology) and Susan Mumford (Education), created a dictionary of frequently used terms. The dictionary is cross-referenced to terms with similar or related meanings in other disciplines (this instrument has proven immensely helpful not only to students but to faculty!)

e)ethics across the curriculum--to reinforce the work of Mercy College's Institute for the Teaching of Ethics Across the Curriculum, the PRIDE faculty developed readings, exercises and workshops to integrate the teaching of basic skills with important issues raised by the concern with ethics in all areas of human experience.

f)PRIDE newsletter--to encourage students to take pride in their work and to work together as a group, the Program produces a bi-yearly newsletter of student and faculty stories and essays, brain teasers and math puzzles

g) faculty handbook--to clarify the goals and objectives of the Program for new faculty teaching in it, a committee, again chaired by Fred Akamine, is producing a handbook to be distributed to faculty later this Spring

h) interdisciplinary grid and lesson plans--to help students recognize and integrate cross-curricular skills, faculty developed a grid correlating the sequence of skills taught in each discipline. The grid is cross-referenced to interdisciplinary lesson plans created by the faculty and collected in a book for use by and available to instructors at each location

This presentation will discuss some of the above approaches developed by the core faculty in greater detail; it will conclude with a description of an interdisciplinary lesson which focuses on the development of logical skills across the curriculum and of the recent consolidation of all support services in one office, administered by the Dean of Support Services, Dr. Ann Rice. This consolidation, which includes the offices of Academic Advising, Counseling, Career Services and College Skills/PRIDE, promises to enhance the effectiveness of the Program.

Conclusion

Interdisciplinary approaches such as PRIDE take advantage of the intrinsic relationships and linkages among skills in order to prepare students for a changing world. In order to succeed, students need to feel that the locus of control is internal, that they have developed a "knowledge base" which will enable them to process information and shape outcomes. Cognitive-linguistic growth of this sort cannot occur in a vacuum; it is only as faculty and students work toghether to reinforce and integrate transferable skills across the curriculum, that we will all march towards excellence into the '90s and beyond.

REFLECTIONS AND REASSESSMENT:
THE METAMORPHOSIS OF AN INTERDISCIPLINARY PROGRAM

Roslyn Abt Schindler

In medias res

The key nouns in the title of this paper — reflections, reassessment, and metamorphosis — evoke a historical perspective: a look backward and a look ahead. History is supposed to be a valuable teacher. Especially in the enterprise of education, we, as educators, must always be eager, not only willing, to reflect upon and (re)assess our past to inform and improve the future, to make metamorphosis or change, the hallmark of the late 1980s and 1990s, meaningful for our students, for ourselves, for our institutions, for our profession-at-large, and for our society. I emphasize the possessive adjective our because we must always start with and return to our own experience, even though we are involved on an ongoing basis with the research and scholarship in our respective fields of expertise, with comparisons and contrasts with other practitioners — known and unknown — and with the often debated linkages between theory and practice (Ludden and Wood, 1987). I wish then to start with a historical perspective, turn to experience — my own —, contextualize that experience in a larger frame of reference, and finally return to personal experience and perspectives to close this discussion.

Historical Perspective

It has been exactly ten years since the following lead article appeared in the Midwest edition of The Wall Street Journal: "Graying of Campus: Adult Students Alter Face of U.S. Colleges As Enrollments Falter" (Graulich, 1977). The prediction then, that the search for new revenues by universities would cause educational programs for adult learners to emerge rapidly, is, of course, history now. The emphasis, too, on credit and degree programs, rather than on the traditional enrichment courses, has been borne out in the development of many such programs around the country since that time. Numerous credit and degree programs, however, were already in existence prior to 1977 as a result of "the turbulent university days of the late sixties" during which, according to Herbert I. London, a new language emerged, "a language that assumed ritualistic uses" and included such terms as change, innovation, reform, restructuring, experimentation, and nontraditional (London, 1976). Russell Edgerton, recent President of the American Association on Higher Education, defines this language even more specifically when he states that "the language of reform was a language of opposition — universities without walls, nontraditional education, alternative education" (Edgerton, 1986).

However one defines/describes nontraditional education, or whether one distinguishes between nontraditional and alternative education for adults, as does Victor Loefflath-Ehly in a 1984 paper on "A Vermont Experiment: The Alternative Education Programs at Vermont College of Norwich University," or whether one points to financial exigency and/or

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a response to student demands and needs for improvement, change, and relevance as the reasons for educational experimentation, the fact is that by the late sixties or early seventies many institutions of higher learning were involved in some way in this new movement:

> Not all of those who engaged in innovation knew what it meant, nor were they always sure of the implications of their acts, but the risks in doing nothing were far greater than in acting. And act they did. By 1973 almost every major university in the country had an experimental college or a division devoted to reform (London, 1976).

The University Studies/Weekend College Program

In keeping with this powerful trend, the University Studies/Weekend College Program (US/WCP) at Wayne State University (WSU) was born in 1973 and developed in the next ten years as a nontraditional, experimental interdisciplinary general studies baccalaureate program for adults in the greater metropolitan Detroit area. As a faculty member in the Humanities since 1975 and an administrator in the Program (first Assistant Director for Faculty, now Associate Director) since 1985, I have observed a significant metamorphosis since the US/WCP's tenth anniversary (1983) when an external search began for a new administration (Director) to ensure the continuation and growth within Wayne State University of a program that has achieved a national and international reputation for excellence in interdisciplinary education for adult learners.

Within the last three years especially, the US/WCP has been in the process of (1) reassessing its original and current educational missions and directions; (2) redefining its status as an interdisciplinary general studies program in light of forthcoming (Fall 1987) University-wide general education requirements and in the context of the national movement toward curriculum reform; and (3) developing new innovative curriculum within a recently initiated (Fall 1986) two-divisional structural reorganization that lends itself to a more integrative approach to teaching and learning than the previous five-divisional structure did. This process is certainly not unusual — indeed, it is typical — for programs like ours that have the benefit of ten to fifteen years of experience, successes as well as failures, and the determination to improve their contributions to nontraditional (clientele as well as course delivery) and interdisciplinary education. It has been and continues to be a challenging process that involves, as always, some risk, to refer back to London's earlier statement.

Indeed, risk-taking is typical not only of nontraditional programs but also of interdisciplinary programs. William V. Mayville's often-quoted 1978 study, Interdisciplinarity: The Mutable Paradigm, provides the framework for other more recent studies (e.g. Trow, 1984; Klein, 1985; Vosskamp, 1986; Murray, 1986) in emphasizing at least three major characteristics of interdisciplinary studies programs: (1) teachers become learners along with their students; (2) teachers are willing to take risks and move outside their specialty; and (3) teachers work together to assemble/coordinate an integrated, problem-focused, intellectually flexible course of study by sharing and/or combining structures, methodology, and content.

Mayville focuses, too, on the significant effects on the student who, I believe, must also be regarded as a risk-taker in the process:

> Recent discussion of the core curriculum and the uses of interdisciplinary study may be understood as an effort to restore the generalizing power to the student beyond the restrictions of his or her own disciplinary epistemology. It might also be explained as an effort to equip a student with the rudimentary tools to develop a personal world-view based on a considered reconstruction of his or her own experience and the experience of others. By extension, this would suggest that responsible citizenship is best carried out by those whose vision is much broader than the metaphysics of their personal choices or academic specialization (Mayville, 1978).

When the US/WCP was born in 1973, its full-time resident faculty in the social sciences, humanities, and science and technology were committed to all of the above. We saw ourselves as "pioneers solving problems" (Trow, 1984/85) for our students, for society, for ourselves. In an insightful 1984/85 essay entitled "Interdisciplinary Studies as a Counterculture: Problems of Birth, Growth and Survival," Martin Trow extends the typology developed by Gerald Grant and David Riesman in their book The Perpetual Dream: Reform and Experiment in the American College (1978)and lists several key characteristics of innovative interdisciplinary programs that emerged in the early 1970s, all of which apply to the US/WCP: selective recruitment of staff and students, a specific and strong sense of mission and commitment, an intense student-teacher relationship, teachers and students as co-learners, and so on. What is significant here is that the US/WCP experience/experiment was/is in the tradition of other interdisciplinary programs (e.g. Antioch, Goddard, Green Bay, Stockton State, Western College, among many others), although its status as an interdisciplinary degree program for adults is still unique both nationally and internationally.

The US/WCP has been and continues to be dedicated to providing/enhancing access to higher education for adults through its integrated course of study, its unique course delivery system, and, since 1984, its expanded degree options. Our courses in the humanities, the social sciences, and science and technology were originally conceived to have a unifying theme each term (e.g. Performing Arts; Ethnic Studies; Energy, Technology, and Society) which was carried out/developed in three formats: a weekly workshop of four hours, morning or evening, at either on-campus or off-campus locations; a telecourse produced by the faculty of the Program and aired on our public broadcasting station weekday mornings, evenings, and on weekends; and an intensive weekend conference on campus three weekends per term. In addition to one year each in the humanities, social sciences, and science and technology, including exposure to and instruction in communication, critical thinking, and computation skills, students would cap their interdisciplinary education with a fourth year of advanced studies: theory and method of the (inter)disciplines (since then redeveloped as Foundations of Knowledge) and a self-directed research paper. At the end of this self-contained curricular process, students would earn a Bachelor of General Studies degree.

New Directions, New Options

Although the curriculum changed somewhat from time to time, especially the more flexible/fluid conference courses, the basic offerings remained the same for about ten years. Since 1983 there has been an expansion of the curriculum to include a greater emphasis on self-directed learning (advocated by Cross, 1981; Brookfield, 1986; among others) through directed study and distance learning courses, new telecourses (leased or purchased) to replace outdated ones, and an introduction of new degree options to respond to the needs of new student clientele, especially the growing population of graduates of two-year Associate of Applied Science programs, students who now seek to complete their baccalaureate degree. The inclusion of these students has encouraged a reassessment of our original B.G.S. program to accommodate this new and welcome population. A redesign of our original curriculum has been implemented to serve students who come to us for only the last two years of their undergraduate education. The chart that follows includes the degree requirements for all three of our degree options and clarifies how the interdisciplinary core remains even in the Capstone options for technical degree graduates.

Bachelor of General Studies			Number of Credits
I.	Lower Division	Social Science	20 credits
		Humanities	20 credits
		Science and Technology	20 credits
II.	Upper Division:	Foundations of Knowledge	14 credits
		Senior Essay/Project or Senior Seminar	8 credits
III.	Electives (for career advancement, preparation for graduate school, or for personal satisfaction)		38 credits
		Total	120 credits

Special Information

- * Completion of GIS 151 (Communication Skills), or 6 semester credits of Freshman English, is a requirement.
- * All new students must enroll in GIS 203 (2 cr.), an orientation conference to interdisciplinary studies.

Bachelor of General Studies - Capstone		
I.	Associate of Applied Science Degree	64 credits
II.	Core Interdisciplinary Studies	40 credits

GIS 308 Capstone Conference 4

GIS 151 Communication Skills 4
Interdisciplinary Studies in:
Social Science 7
Humanities 7
Science and Technology 7
Foundations of Knowledge 7
AGS 492 Senior Capstone Project 4

III. Electives (in a technical area, general studies, or a combination of these) 24 credits

Total 128 credits

Bachelor of Technical and General Studies

I. Associate of Applied Science Degree 64 credits

II. Core Interdisciplinary Studies 40 credits
GIS 308 Capstone Conference 4
GIS 151 Communication Skills 4
Interdisciplinary Studies in:
Social Science 7
Humanities 7
Science and Technology 7
Foundations of Knowledge 7
AGS 492 Senior Capstone Project 4

III. Specialty Studies (specialized courses in the student's technical, vocational, or professional field or in an applied area) 24 credits

Total 128 credits

General Education Requirements

Our Program has responded also to the forthcoming (Fall 1987) University-wide General Education Requirements. These requirements, of course, reflect a strong current national trend toward curriculum reform (Boyer and McGuinness, 1986; Bok, 1986). WSU's requirements, which include both general and specific guidelines in/for each category, encompass the following:

*Competencies

- * Written Communication
- * Mathematics
- * Oral Communication
- * Computer Literacy
- * Critical or Analytical Thinking

*Group Requirements

- * Natural Sciences
- * Historical Studies
- * Social Sciences

* Foreign Culture
* Humanities

*Introduction to the University and Its Libraries

Our courses have been revised/are in the process of being revised to address the concerns of the specific requirements. Although our program is an interdisciplinary general studies program and provides studies with course work in all of the aforementioned areas, each of our courses must demonstrate adherence to the general and specific guidelines to ensure that our own students and other WSU undergraduates who take our courses, approved along with other, disciplinary courses in like categories, will receive a common core of undergraduate education, the most important intended outcome of these requirements. The process of course revision, which has entailed/entails class scrutiny of our individual courses and our overall purpose, has afforded us an excellent opportunity, I believe, to reflect upon and reassess directly our past, present, and future as an interdisciplinary degree program for adult learners.

New Structure

Our efforts related to the new General Education Requirements at WSU have been facilitated, in my view, by our current faculty structural organization. Our prior five-division structure has been recently reduced (Fall 1986) to a two-division structure to accommodate our twenty-four full-time resident faculty in a more effective manner:

Prior Five-Division Structure

Social Science

*Social Science sequence
*Directed Study
*Electives

Humanities

*Humanities sequence
*Directed Study
*Electives

Science and Technology

*Science and Technology sequence
*Directed Study
*Math Skills
*Computer Skills

*New Student Conference
*Combined Interdisciplinary Conference

Communication

*Communication Skills courses

Upper Division

*Foundations of Knowledge
*Senior Seminar
*Senior Essay/Project
*IUC Courses
*Directed Study courses
*Electives
*Capstone Conference
*Foundations of Knowledge Conference

Current Two-Division Structure

Foundations of Interdisciplinary Study

* Communication Skills
* Math Skills
* Computer Skills
* New Student Conference
* Capstone Conference
* Writing across the Curriculum Program
* Senior Essay/Project
* Foundations of Knowledge sequence
* Directed Study courses
* Telecourses
* Conference courses
* Elective courses

Interdisciplinary Concentrations

* Social Science sequence
* Humanities sequence
* Science & Technology sequence
* Senior Seminar
* Directed Study courses
* Telecourses
* Conference courses
* Elective courses

Our new structure has three major advantages over the old structure, especially in relation to curriculum development: (1) it offers faculty the opportunity to work with faculty from the same and different (inter) disciplines: this encourages both old and new working groups, fosters cooperation and integrative team-teaching efforts, and offers the possibility of "new and surprising constellations" of knowledge and energies (Vosskamp, 1986); (2) it allows for both large and small group dynamics within the framework of two divisions; and (3) it offers a home for each course (sequence) that we currently offer, puts old courses in new contexts, and offers the possibility for the development of new courses and sequences (growth potential).

So far, one result of the new structure is the development by two faculty in the Foundations Division, one from Humanities and one from Science and Technology originally, of a Five-Point Skills Development Proposal, discussed elsewhere in these Proceedings by my colleague Mary Lee Field. Both faculty have a particular interest in skills development (especially reading, writing, math, and critical thinking) and have cooperated through the new divisional structure toward a mutually beneficial end: the introduction into our Program of skills — across-the-curriculum, in keeping with current research in this vital area (Meyers, 1986). This joint effort provides an excellent example of new directions in our curriculum for both old and new student clientele, a reassessment of our courses/curriculum related to what we have had or not had (history) vs. what we need now and in the future, adherence to the principles of a core curriculum and general education requirements, and a concrete result of our new divisional structure.

Concluding Perspectives

Nothing in education occurs in isolation. All of our current and future efforts in curriculum development within our interdisciplinary degree program for adults are related to both our and others' wants and needs, some of which are within our control and some of which are not.

As educators, we must move forward and respond to change as we deem best for our student population, but always with the full realization that we function within a macrocosm — the larger institution, or profession, society — that includes others' wants and needs as well as certain fundamental realities of life. One reality, perhaps the overriding one, is that those of us involved in the educational process — administrators, students, and teachers as well as other personnel — want to improve what we do in order to make what we do more meaningful for future generations of students, to prepare them in the best possible way for the world in which they will live. This includes theory and practice; this includes form and content; this includes methods and values; this includes problems and issues; this includes disciplinary and interdisciplinary perspectives; this includes, above all, a commitment to creative and constructive change to meet the needs of the future. The US/WCP at WSU has demonstrated that commitment and will continue to do so in the challenging years ahead.

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THE INTEGRATION OF BUSINESS MANAGEMENT INTO A NURSING ADMINISTRATION GRADUATE DEGREE

Stuart R. Arends

Nurses who enter management positions in health care facilities need to be vitally interested in gathering and using business management skills in order to make sound managerial decisions. However, many health care professionals have limited knowledge of business fundamentals, but at the same time have accounting data, marketing surveys, budget reports, and personnel usage statistics thrust upon them.

Today, health care has become big business. Wohl (1984) states that the rapid takover by corporations of the health care field is reflected in the speed with which those corporations have grown. Seven of them appeared in Fortune magazine's 1982 list of the one hundred largest diversified service companies whereas only five were listed one year earlier.

Every health care facility, no matter what its ownership, is essentially a "for-profit" organization although many fight for tax exempt status. Every hospital strives to have revenue from patients exceed costs or expenditures. Those who have non-profit status usually take their net income and put it back into capital projects, research, or new equipment. Corporate health-care providers make, as a part of their budgeting or planning process, the generation of net income to satisfy shareholders and potential investers.

During the 1980's we have seen a subtle, now fierce, competition among health providers. Marketing methods have been fairly primitive in the health-care industry up until this time according to Super (1986). Since 1981 hospitals have been offering packaged services or product lines without fully researching what the marketplace wants or demands. Market segmentation, where several groups are identified for needing specific services, is the next step in health-care marketing according to Tiedemann.

Although most U.S. firms, including health care organizations, use budgets and managers believe that these budgetss are helpful we seem to know very little about what constitues effective budgeting. Books and courses on budgeting

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emphasize the procedural or content aspects of it. Umapathy (1987) feels this focus ignores the interpersonal and small group processes which areessential to effective budgeting.

Management accountants in health settings should learn to use both financial and nonfinancial budgetary targets. In addition to financial goals such as net profit, gross margin, sales, and return on assets, nonfinancial targets or goals need to be established. Major areas of importance here would include quality of service or product determination Super (1986), and product leadership, Super (1986). This balanced approach with emphasis on financial and managerial aspects of budgets will lead to better performance. Umpathy (1986) states that entry level managers need skills in working with human resources, marketing, and production (service) management techniques as they establish budgetary programs and controls.

Petitte and Anderson (1986) believe that within the next decade major healthcare systems will be shaped by those who pay for the care rather than by those who provide it. The distinction between insurers, financers, and providers will continue to blur. Integrated health systems encompassing insurance, finance, and hospitals will be dominant.

Education Of Nurse Administrators

The trend and desire to increase revenue has driven many large hospitals and hospital corporations into the insurance field. The not-for-profit systems have also integrated vertically into insurance. Hutts (1986) states that good business and medical management is a necessity for management personnel including nurses. The real survivors according to Mc Carthy (1987) will be those organizations which can combine cost efficiency and quality service. That is why she believes nurses will need a business background as well as clinical expertise to benefit their hospitals to the fullest extent.

Christman (1987) feels that the clinical or management related doctorate will be the minimum entry requirement to the nursing profession in the very near future because of the way tremendous way in which scientific knowledge is expanding. He stated that the educational and knowledge gap between nurses and other health professionals is increasing. One cannot have an inadequate educational background and have much influence over the form and direction of the health delivery system. Management strategies will change and computer-assisted managerial techniques will reduce the number of nurse managers needed although competence levels will increase.

Billie and Wright (1987) state that the professional nurse of 2,000 A.D. will be educated beyond the baccalaureate leverl and will have new and different skills based on information which has come from three areas: clinical, education, and management or administration. Nurses will have learned by then, too, how to relate as true colleagues within the corporate structure which governs even today most of health care. Thus, according to these men, all professional nurses will have learned to function within a business and have a professional business sense about them.

Sample (1987) suggests that the nursing profession must advance the educational base for nursing so that nurses develop the intellectual abilities to treat patients better and it must train and develop managers and leaders in order to have viable positions of authority and responsibility in the health delivery system. Nursing administrators need to nuture clinical coalitions within each institution to insure quality patient care.

Armstrong, Eck, and Schuck (1987) state that the nursing profession needs administrators who can develop budgets and do planning according to objective criterion and not by pressure and precedent. Management information systems must be developed to provide nurse managers the feedback necessary to manage effectively. Identification of nursing costs promotes analysis of their use and promotes better resource utililization. It also provides a way to monitor and control costs, demonstrate the costs based on services rendered to patients, and reduce the problem of internally shifting costs. This will mean, for most personnel, that additional skills and education must be attained.

Simpson and Hudgings (1980) state that we should expect hospitals to be operated as businesses. In the 1960's nurses were not primarily concerned with the cost of patient care. However, the advent of Medicare during that decade resulted in the cost of health care becoming a real concern for nurses and other health care practitioners. Traditionally nurses and doctors had no significant incentive to address the cost of patient care. Funds were available for equipment and staff and justification for expenditures was not necessary.

DRG's have hit the health care industry just as personnel hours per patient day were steadily increasing in the early 1980's One result has been that nursing administrators need to quantify their staffing needs. Financial statements, ratio analysis, and return on investment became crucial to the administrator nurse even though he or she was not prepared to enter this arena.

Nornhold (1986) says that although DRG's have received negative feedback from administrators positive aspects of them have occurred. He feels that patient care has improved, bedside care of the patient has improved, and better qualified nurses have been hired. Nurse administrators are not prepared to operate in an environment in which the financial impact of their actions are important. This is going to be increasingly important in the future.

Nursing departments have been given cost center responsibility in the past where the objective was to contain and reudce costs. In reality they are cost containment centers but also the major revenue generating unit especially in a hospital setting. Nursing administrators need to show health care executives that the cost of a better educated and prepared staff will in fact result in an increased rate of return for the organization. Documentation in several areas is required to really demonstrate that quality care can reduce costs and increase revenue. Cost effectiveness of delivering nursing services must be demonstrated. Nursing departments need to be financially accountable for services rendered and outcomes which are observed.

Patient education and satisfaction is probably the most important asset which the hospital can provide. Documentation of the financial impact that this has for the hospital is difficult but would tremendously enhance the revenue-producing image of the nursing department. To educate the future nurse fo his or her job will require training in economics, psychology, sociology, and finance. The financial impact that nursing makes in patient discharge planning also must be analyzed.

The control of the use of resources and consequently the production of revenue is an integral part of the nurse's role in a health care facility. Hospital administrators recognize that the nursing department influences the medical stafff on use of equipment, supplies, and procedures.

Concerns Pertinent To The Future Of Nursing

A major change needed to insure the future viability of nursing is increasing the nurse's knowledge of accounting and finance through formal and informal training. Nurses must learn to speak the language of business and especially accounting and finance according to the majority of the quoted literature. This will increasingly be a requirement for being a leader in the health care arena. "Business people don't know our language and what's more they don't care to learn it. So it is important that we learn as much as we can about their language (Nornhold).

Hospitals are conducting their business on financial as well as humanitarian grounds. Nursing must do the same if it is to survive as a profession and have a major future role to play in the health care field. Although reluctant to do so nurse executives need to develop a business perspective and realize that they are members of a multimillion dollar corporation and must remain financially viable.

Financial education should become manditory in nursing schools particularly at the graduate level. Costing out nursing services, identifying the products delivered, and pricing these products to show revenue earned all require financila knowledge as well as a background in management techniques and marketing.

Computer knowledge is a necessary tool that the nursing profession must use more and more in the future too in order to document and gather data proving its benefit to hospitals. Nursing executives must provide their staffs with the computer support and education needed to perform tasks in a more cost effective manner. Computers can relieve nurses of the more mundane indirct patient care tasks so that nursing time on the job can be more productive.

Several authors in the literature stated the importance of the nurse professional learning marketing techniques to help financial viability for the health care facility. The profession, its products, and services need to be marketed just as in any other organization. Health care needs to market its strengths while at the same time work on its weaknesses through education.

Conceptual Framework of Graduate Degree

A Master's Degree program in Nursing or Health Care Administration should build upon a strong clinical baccalaureate base. The nurse administrator acts as a laison between the clinical nurse practitioner and the nurse or health care executive at the highest level in the organization.

The purpose of a graduate program in Nursing Administration should be to prepare the nurse or health care worker with the advanced skills of clincial nursing practice but with particular integrative emphasis on business management functions and skills. The administrative core of courses is interdisciplinary among the management functions which helps to broaden the nurse's viewpoint of health care management and prepares the worker for interaction with other department managers inside as well as outside of health care organizations.

Community Need Assessment

Prior to deveoping a graduate program with goals similar to those stated above Madonna College established the need for such a course of study through a survey of faculty, students, alumni, and prospective employers. 3,900 alumni were surveyed by the College to indicate whether or not they felt this type of program would be viable and of interest to them. There was a 45% response rate on the survey and out of that number 46% said that such a program would appeal to them. It should be noted that the College has a large nursing division (25% of total student count).

The faculty and administrators of the College were also asked to indicate whether they though such a program was necessary and supportable. 89% of them returned the survey. When asked which new graduate program would be likely to suceed nearly 93% selected a program in health care administration.

Five hundred or 47% of the students who responded to the survey said they would be interested in the proposed program of study.

Finally, health care organizations were asked about the need for such a program in our community. Forty-seven responses representing a variety of organizations were received. The feedback was favorable in terms of these personnel supporting the proposed program and concept.

As a result of the total positive response the College determined that there was indeed a need for such a graduate program to prepare persons to enter the health care field in managerial and supervisory positions consistent with their undergraduate majors and career field.

Program Competencies

The following competencies were developed for the proposed program:

The Master's Degree:

1. Should teach and give the student practice in advanced administrative techniques and the use of current organizational behavior strategies in a variety of health care settings.

2. Should relate the nurse clinical responsibilities to those of the nurse as administrator.

3. Should teach nurses and health care workers management information systems. Using computer information for management decision-making was stressed in the literature.

4. Should teach the element of financial and managerial accounting as well as elementary finance. The creation and control of the budget process is crucial in order to support cost-effective programs, including personnel matters, equipment and supplies purchase, and space utilization.

5. Should be concerned with the future of the profession and the health care industry. A futuristic orientation to management is important; one that applies principles of forecasting and facilities planning for both the short and long term.

6. Should stress a working climate that fosters ethical, humanistic values and respects the autonomy of the nurse professionally while requiring responsibility accountability, and provides leadership in problem-sloving.

7. Should give the student a sound foundation in marketing both internally and externally of the organization.

Program Description

The Master of Science in Administration (M.S.A.) degree with an specialty in Health Care Administration has been designed with a difinitive mission as its base. Its focus is on professional and managerial leadership within a futuristic context. This will assist the student in developing a philosophy of management which will serve him/her and the organization through the 1990's in this rapidly changing world.

As figure 1 shows there are four main components to the developed program: The administrative nursing process, fiscal management and technical skills, professional and managerial leadership, and issues management.

The administrative nursing practice section of the MSA starts off with the assumption that the student needs to learn advanced nursing administrative ideas in both the episodic and distributive domains in three different organizational settings: Clinical, entrepresneurial, and educational/research. This area of the degree is covered with five courses counting two (2) semesters of credit each.

The fiscal management and technical skills area includes courses in managerial accounting, budgeting and administrative controls, basic and advanced information systems for management, and decision-making using statistics and computers. Again there are five courses counting two (2) credits each.

The professional and managerial leadership section of the MSA program contains courses in organizational theory and behavior, human interactive systems, effective communication techniques for the manager, and marketing of the organization function. As with the other sections of the program this part contains five courses with two (2) credits granted per course.

The feeling was strong that issues management was an important component in the study of nursing administration. Therefore, the developed program looks at the future society and management leadership, the ethical framework of business and of the administrator, and at management thought and development. Here we have three courses at two (2) credits each.

The remaining four credits in this forty (40) semester hour program revolve around a practical research project which is done on site at the student's place of employment. The topic for the paper is developed jointly by the student's employer, the student, and the faculty advisor at the College. The hope is for meaningful research which helps make progress on solving an administrative problem which actually exists. The student therefore has the opportunity to use his developing skills and knowledge which he has learned in the program.

Results of Program Implementation

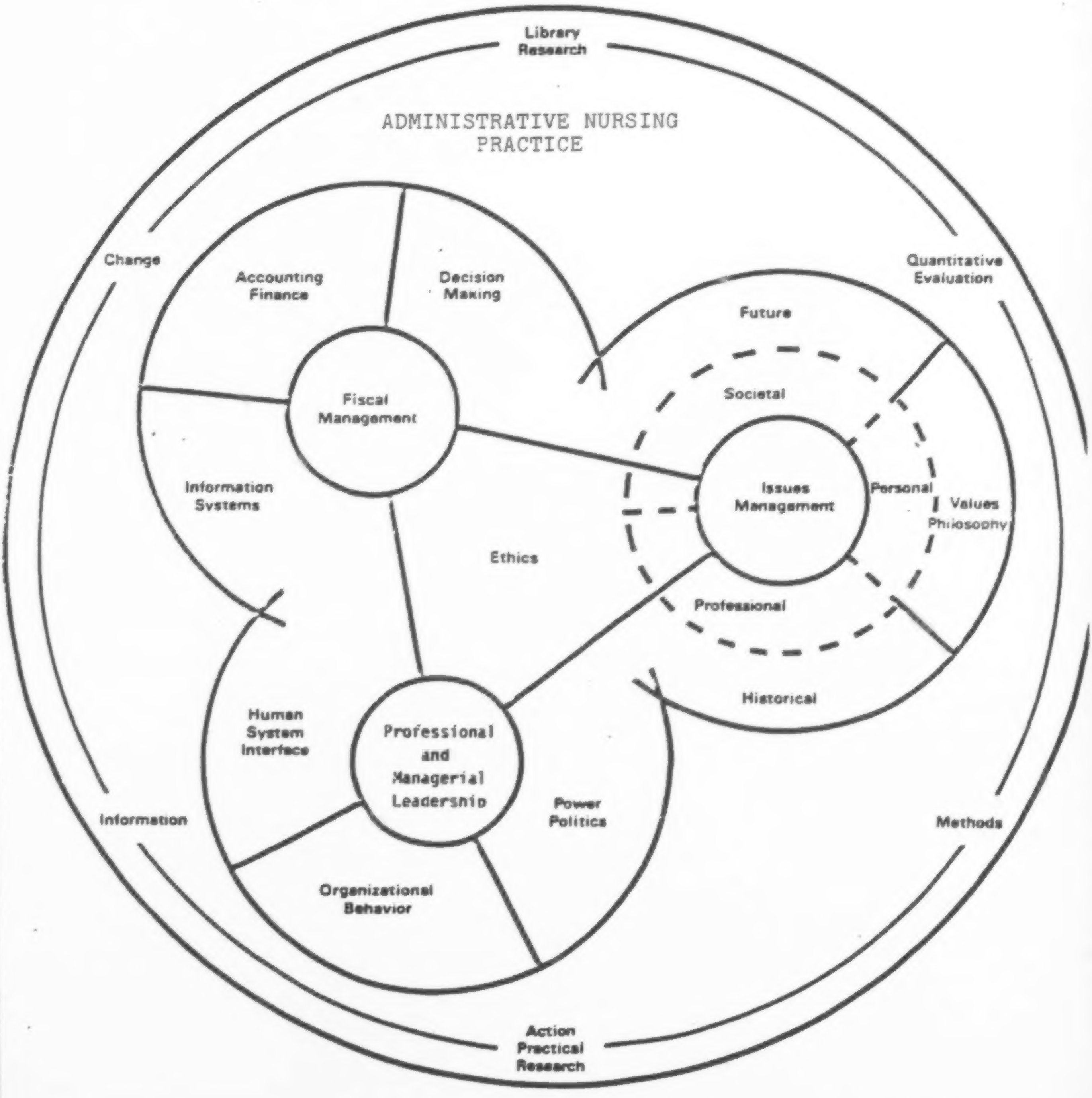
The described program was started in 1982. Three hundred applications for the program were received. The Board of Trustees felt that the program should be developed with nursing administrative practice courses offered during the first year,fiscal management the second, leadership the third year, and issues management the fourth year. They also wanted initial enrollment to be limited to one hundred students during the first year of course offerings.

During the part two years the program has operated with all four cycles of courses operating and with approximately three hundred actively involved students during any given term. Students are made to feel free to schedule "stop outs" in their degree program process should family or work require an interruption to going to school.

The majority of the students in the program come from the seven county metropolitan Detroit area. However, we also have commuting students from a one hundred-fifty mile radius in all directions.

This graduate program uses graduate faculty from several disciplines: Accounting, finance, statistics, management/marketing, english, humanities, and nursing. Therefore there is an interdisciplinary nature to the program from a faculty standpoint too. This feature gives the students a variety of faculty styles, knowledge bases, and department disciplines. This aspect also tends to add overall support to the program because of wide-ranging faculty involvement.

Figure 1: Master's Program Framework



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AN INDIVIDUALIZED MASTER OF ARTS PROGRAM IN INTERDISCIPLINARY STUDIES

Alfred Cohn

New College, a small Liberal Arts College at Hofstra University on Long Island, established New York State's first graduate program in Interdisciplinary Studies in 1975. Its purpose was and is to serve those whose goals could not be accommodated in traditional programs. Interdisciplinary Studies is defined as research in which disciplines from at least two of the following are prominently incorporated: Humanities, Social Sciences, Natural Sciences, and Creative Studies.

Our anticipated clientele included people who were at a turning point in their lives, those who wished to develop new interests, some who needed the credential of a master's degree to obtain or keep employment, and people with strong interests in areas that did not lend themselves readily to more conventional forms of graduate study. We also had working relationships with three professional organizations with which we cooperated, adapting our program to their needs while retaining its rigorous and interdisciplinary qualities.

Some Statistics (since 1983). Since June of 1983, we have received approximately 400 inquiries, about 320 of them by mail, most of the rest by phone. Many came from aspiring foreign students who had misunderstood announcements they had seen and hoped to pursue MBA or other degrees we do not offer. Others were from people who were either unaware that a program in interdisciplinary studies does not lead to a license to offer faith healing or had in mind other such ambitions. Inquiries were screened by our administrator, who was able to refer some applicants elsewhere and to discourage the clearly unqualified (e.g., those with no college degree). We were thus left with a total of 34 completed applications, of which 23 were acceptable. Of the 23, 20 enrolled in the first phase of our program. (In the same period we have granted 8 MA degrees.) Applicants have ranged in age from 22 to more than 65 and have come from a wide variety of backgrounds, from the unemployed to practicing physicians, teachers, business executives, and a professional cartoonist.

During the last 12 years we have enrolled approximately 100 students of whom 37 have completed the MA and 20 are actively engaged in the program. We have a rather high level of attrition which I, at least, attribute to such circumstances as the following: nearly all of our students are employed full-time and many have family responsibilities in addition. The program is a demanding one, particularly since students must work independently. Somehow it is easier to go to class regularly and let the teacher do the work than it is to go to the library after a hard day or on a precious week-end and spend time digging out information. Work is often returned for revision and while most of our students

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learn to anticipate the critiques with something akin to pleasure, others find the process frustrating and inconsistent with what they had hoped would be a thoroughly enjoyable intellectual romp. Some of our students come to realize that they wish to do work for which our program does not prepare them, psychotherapy, for instance, and they are quickly encouraged to move on. We have had some gifted scholars whom we have successfully urged to leave us to go to outstanding doctoral programs, e.g., one in the History of Photography. Thus attrition has many causes, and we do not consider our high rate cause for alarm.

The special programs that we have developed are in conjunction with: 1) the American Society of Appraisers, one of the major professional organizations of that field. We offer its members an opportunity to study subject matter pertinent to their areas of expertise or interest so that they may be better informed about those objects or properties they seek to evaluate. We do not teach them how to appraise, rather we try to broaden their understanding of that which they are appraising or of the effects of their functions. 2) the American Association of Sex Educators, Counselors and Therapists (AASECT) , which has a program for certifying workers in these areas. Our program incorporates their training requirements but supplements them with scholarly work of an interdisciplinary nature. 3) South Oaks Hospital on Long Island, which has a large program in the treatment of addictive personalities and in the training of counselors. A number of their counselors elect to combine the South Oaks program - also a demanding one - with ours. In such instances the first two contracts, both interdiscipinary in nature, are completed at South Oaks; the third contract and the thesis are completed at New College. All work, including that done at South Oaks, is reviewed by our faculty. Examples of programs of study of each of these three special combinations will be given below.

Several of our students have published some product of their program of study and others have gone on to doctoral programs or are employed in work made possible, in part, by their studies with us.

The 34-credit Master of Arts Program in Interdiscipinary Studies requires completion of five components:

I. A 4 semester-hour Initial Study class which reintroduces students to the rigors of intellectual life and assists them to define a plan of study which will meet their goals in a manner consistent with the interdisciplinary character of the program and with the number of credits of each component.

In this 16-week course there are twelve meetings, the goals of which are to re-establish sound research and writing skills, to "socialize" the new student into the New College milieu with its stress on independence of thought and clarity of expression and, above all, to assist the student in the design of a viable plan of study to be pursued in the subsequent components of the program. Since, by definition, our students are making a change in the direction of their lives, and because it is a fine example of interdisciplinary scholarship, students are required to read

J. Bronowski's Science and Human Values. A biologist and poet, Bronowski strikes a resonant chord among our students. Some find him sexist and inhumane; others, with equal fervor, declare him to be a voice of reason in a world gone mad. Also required is G.W. Allport's Becoming. While some find it very difficult, since Allport assumes a sound liberal arts background, nearly all find it instructive about their own situations and aspirations.

Both books engender lively discussion and, more important for our purposes, grist for the writing mill. Students are required to write a series of papers starting with the more general and moving to the more specific. For instance, the first paper requires that they identify an idea of Bronowski's that interests them and, in about 500 words, summarize and evaluate that idea. A second assignment (given the second week) requires students to select one of three viewpoints presented in a chapter by Bronowski and explain why it is closest to their own. For the ninth session students are to submit a 750 word discussion relating Allport's book to some aspect of the theme to be explored in their plan of study.

Careful critical evaluation serves to prepare them for the intensive interaction with supervisors which will follow in subsequent components of the program. They learn quickly that criticism of their reasoning and writing is not rejection of them or derogation of their human worth but rather the most important service we can give them in preparing them for the individualized work to follow.

In addition to this "conditioning", the Initial Study provides the setting in which the student's program is shaped. Many come to us with inchoate ideas about what they need to know or wish to study and how it might fit into a Master of Arts program. In class discussion and dialogue with the instructor, these ideas are tested, expanded, rejected or refined so that, by the end of the semester students have a plan acceptable to them and to the Core Faculty of what each successive component will involve, the identity of potential supervisors, the material available to them for research and how each component is to mesh with each of the others.

The books and papers listed above are by no means the only work required in the Initial Study; it requires five major products. One is the Plan of Study itself. Accompanying this is the second requirement, a rather extensive Annotated Bibliography which is intended to demonstrate that adequate material exists for the intended pursuit to be successful. Third is a Library Paper which is intended to be the initial inquiry into the student's field of study. Ordinarily a quite specific (and often peripheral) issue is explored in depth. The subject of the paper is intended to relate to the subject of the Plan of Study in such a way as to provide some necessary but specific background information as well as to provide direct experience in the skills which the Program requires under the benevolent supervision of an instructor who will insist on thoroughness and clarity. The fourth requirement is an Abstract of the Library paper. The Abstract is the document which is provided to anyone who wishes to know what the student's program entailed. There being no courses in the usual sense, some such indication is necessary and an Abstract is thus required for each of the five program components. Finally, in order to complete the Initial Study and thus become a candidate for the M.A., the student must submit a detailed proposal for the First Contract. This includes a more exhaustive annotated bibliography. Each of the three contracts requires a similar proposal for the next component in the sequence.

Supervision is provided, wherever appropriate and possible, by full-time members of the Hofstra University Faculty. Occasionally, whether because a student lives many miles from Long Island or because we lack an expert in the proposed field of study, we will ask for the assistance of a scholar whose competence complements our own. One present student who is interested in the commercialization of medicine found a physician whose hobby is the history of medical advertising. He has published widely in that field and the Core Faculty, those who are responsible for overseeing the whole program, agreed that it was appropriate to ask him to supervise one of the student's contracts.

Following the successful completion of the Initial Study and the submission of a satisfactory proposal for Contract I, the student is officially declared a candidate for the M.A. degree and moves on to the next phase of the work - the Contracts.

II - IV. Three 8-credit contracts each investigating a specific facet of the over-all program under appropriate supervision. The three contracts are related in that all bear on some aspect of the student's field of inquiry, but they must be taken in sequence, rather than concurrently. That is, a given contract must be completed before the student may proceed to register for the next. Because we are on a quarterly calendar at New College, it is theoretically possible to complete a contract in 7 1/2 weeks of full-time effort, but this is almost never accomplished. Generally, a contract requires a semester or even an academic year for completion. The student indicates a time table in the contract proposal but this is not rigidly maintained. If the student is working well, it can be extended without difficulty. A student who appears to have been neglecting the work may be required to register (and pay) anew for the contract when the "deadline" is missed. The purpose of this is to encourage students to maintain contact with their supervisors and with the program and to discourage those who are inadequately motivated from wasting their time or ours. Satisfactory completion of the third Contract entitles the student to submit a detailed proposal for the Thesis.

V. A 6-credit Thesis which integrates and extends the preceding work in a manner congruent with the student's goals and program requirements.

Some problems and some successes will be described.

Problems. It will come as no surprise that such an unusual program invites unusual students. Unusual students often present challenges that more conventional students would never imagine. While such challenges have rarely been very troublesome for us, they have sometimes posed difficulties for our students. I will mention some cases in point.

Applicants turn up who view a program of independent study as an invitation to a diploma mill. We have had a few and, before we grew wiser, even admitted some who said the words we academics like to hear about "high motivation" and "passion for reading and learning" but to whom these words had no recognizable meaning. Once they realized that we were serious about academic values, against plagiarism, and for hard work, they seemed to lose interest. We have also had applicants whose goal was to demonstrate that their particular set of, shall we say, "unusual beliefs" were capable of saving mankind from disaster.

Occasionally, we were found by applicants who were already quite expert in their proposed field of study and, to benefit from further study, would have required more than a master's program could offer. Sometimes we recognized this before they did; sometimes they knew before we. Such partings were amicable.

There were some who were quite unable to tolerate red ink on their pages. One student complained because, on the one hand we required that papers be typed and submitted in duplicate, and on the other hand we returned papers with comments hand written in red ink "all over (her) paper". She felt that that was quite unacceptable and elected to withdraw from the program rather than endure such rude treatment. Apologies were to no avail, perhaps because they were half-hearted.

While one would not consider it a problem, it was disappointing when we found that we simply could not serve the legitimate needs of a student. One gifted young woman wanted very much to study photography as an art form and to do so at the level of a professional scholar. We at Hofstra do not have the resources which such a student requires and deserves. We wrote strong letters of recommendation to a suitable doctoral program in another part of the country and were pleased when she was admitted and offered sufficient financial aid to be able to attend.

A major difficulty for students has to do with conflicting demands between requirements of our program and pressures from other circumstances. One woman, who was initially drawn to the program by a need to learn to cope with her son's addictions, found that caring for him was so draining that she had to withdraw for a time. Happily, she is again actively pursuing her studies. Another student, a physician who wished to make a change in his way of earning, came to us with a zestful interest in matters Victorian. His professional colleagues conspired to elect him president of the local Medical Society requiring that he give up his studies and devote his energies fully to his specialty once again.

Underestimation of program demands is another problem frequently confronted by students. Until they try it, some find it hard to imagine that "reading a few books" and writing a paper can be so time and energy consuming as to leave them unable to meet other obligations, even the everyday ones.

Among the alcoholism counselors in our program a number have been recovering alcoholics. We have found them, individually and collectively, to be bright, interesting, and willing to work hard. Some, however, were extremely concerned with how their work was being evaluated, with whether they could really trust us to provide what we'd promised; they seemed unable to allow themselves to enjoy the opportunities offered by the program. Of those so afflicted, few finished. It is interesting that a goodly number of alcoholism counseling students were offered full-time employment on the basis of their work at the hospital regardless of their standing in our program and so were either side-tracked from their studies or decided the degree was no longer as important as it had once seemed.

In a program that is highly structured, in which students move together as a cadre through a sequence of requirements and can offer assistance to one another, moral support, and notes for missed sessions, these difficulties would probably interfere less than in an individualized program. Where the student's rate of progress is his or her own responsibility, however, such problems, it appears, can have a large impact on the student's ability to persevere.

We have made an effort to provide some of this peer support to our students. They once were required but now are merely invited to attended periodic colloquia at which there is a presentation of general interest along with ample opportunity for socializing over refreshments. Some of our alumni (all of whom are invited) continue to attend for years after graduating, viewing each such gathering as a kind of reunion. Programs include lectures, tours, museum visits, shows in New York City, jazz concerts and the like.

Successes. It seems appropriate now, having described some of the problems, to describe some of the programs which students have designed. Some are in process; others have been completed.

From the South Oaks Program:

Mrs. A. entered the South Oaks program several years ago with an interest in the phenomenon of compulsive gambling. Having lived with the problem she hoped to be able to help others to cope with it more effectively than most do. The subject she chose for the Library paper required in the Initial Study was "Character patterns of the compulsive gambler". Contracts One and Two were completed at South Oaks Hospital where she was exposed to theories of addictive behavior (particularly alcoholism), modes of intervention and treatment of patient and family members, and other material presented by members of various helping professions. As required by our program she maintained a very detailed log of the ten months that she spent in that program (which were contemporaneous with the Initial Study, a fact which seemed at times to impose overwhelming demands on her). Contract Three was an in-depth study of "Pathological gambling: the disease." It yielded a "curriculum for the training of counselors." Mrs. A. did not finish the program and probably will not because, on the basis of her work in Contract Three, she was hired by New

York State as coordinator of its Office of Mental Health Training Institute on Compulsive Gambling.

From the Valuation Sciences Program:

Mrs. B. is an appraiser of art objects and collectibles in a southern city. She traveled to Long Island for an intensive period of Initial Study which was supplemented by mail and telephone contact as required. Her goals were to learn more about the objects she appraises and to help in the professionalization of the appraisal field by publishing her findings and encouraging others to become more systematic in their acquisition of expertise. Her Library Paper which was entitled "Oriental Rugs - Mirrors of the Changing East" examined the history and manner of manufacture of Oriental rugs in several different communities. Her first Contract was under the supervision of an economist and examined " Art, Antiques, and the Tariff Law." Contract Two, "Art that shades the glare: A history of decorative lamp shades," and Contract Three were done under the supervision of outside experts in collaboration with a Hofstra art historian. The latter explored "Changing images and fashions: European design influences on early Meissen porcelain." Her thesis, which represented a return to one of her initial interests, the professionalizing of appraising, was entitled: "Aesthetic and authenticity factors in fair market value." It was primarily concerned with the bases for judicial decisions in litigation involving the appraisal of works of art for tax purposes.

From the AASECT program:

Ms. C., whose field of interest was Sex Counseling and Education, met requirements of the American Association of Sex Educators, Counselors and Therapists (AASECT), as well as ours. She did her Initial Study paper on "Pheromones in relation to Human Sexual Behavior." Her first Contract, on Sex Education, included examination of the nature of the teaching function, group dynamics, AASECT and SIECUS programs and materials, as well as attendance at a 3-credit graduate course on Sexual Health, and the design of pertinent lesson plans. Contract Two included participation in another graduate course, Human Sexuality and Counseling, and an extensive internship. Her third Contract included attendance in courses in Marital and Family Therapy and Family Counseling, and a paper concerning the then-current Sixth World Conference on Sexology. Her innovative and important Master's Thesis concerned the "Effects of Prescription Drugs on the Sexual Functioning of the Senior Adult."

From the "Regular" program:

Mrs. D. entered the program with interest in the relationship between Graeco-Roman Classical traditions and the Christian tradition. Her Library paper was on the heritage of Apeiron, the cosmology of Anaximander of Miletus. She is presently working on her First Contract, "The classical and Christian elements of Christian Humanism as expressed in Sir Thomas More's Utopia." The second will address the same issues in Hamlet and King Lear, and the third will examine them in Milton's Samson

Agonistes and Paradise-Lost. Her thesis is anticipated to be that "the phenomenon of Christian Humanism did exist, and ... passed through distinct phases of development." Each author will represent a particular stage, roughly as follows: the original optimism (More); introduction of scepticism (Shakespeare); and, a modified optimism (Milton). This plan of study combines history, literature, and philosophy in all three Contracts.

Mrs. E. came to us with an interest in the ways in which isolated groups adhering to atypical ways of life manage to sustain themselves in the face of twentieth century pressures. Her Library paper dealt with "The Old Order Amish Farm" and drew upon both library research and on-site observation. Her first Contract, written under the supervision of a Law professor, had to do with the "Amish Fight against Compulsory Education", and her second examined "The Plain People at Home: Their Quarters, Customs and Costumes". A cultural anthropologist worked with her on this. Mrs. E. has recently proposed a third Contract on "The history of the Amish in America" and plans to propose a thesis addressing "Amish adaptations to modern society."

Mr. F., a music teacher, has had a life-long interest in classical guitar and, more specifically, in Andres Segovia's goals and accomplishments in elevating the musical status of the guitar. His Library Paper for the Initial Study was concerned with examining the nature of this influence in relation to the life of Segovia. His first Contract was on philosophical bases for the aesthetic evaluation of music. In Contract Two he investigated "The evolution of the classical guitar from the 13th century to the present". He is presently preparing for Contract Three, "The Physics of Music," which he will explore with the help of a physicist-musician from a neighboring university. Following that, he anticipates a thesis concerning the teaching, thinking, and artistic impact of Segovia.

Mrs. G. is a teacher of hospitalized young children. She seeks to provide them a general education, although her particular interest is in the sciences. In order to design lessons as suited as possible to their age levels while taking into account any limitations they may have, she felt the need for more background in child development, in the nature of certain chronic illnesses, and in theories of pedagogy in areas with which she had had relatively little experience. Accordingly, her Library paper gave her an "Overview of emotional reactions of anxiety and fear in hospitalized children from birth to age 10." For her first Contract she developed "A handbook for teachers of hospitalized children - the biology of cancer and leukemia." This was accomplished with the assistance of medical personnel in the hospitals in which she taught and was supervised by a chemist with expertise in the chemistry of these illnesses. Her second Contract, under a psychologist's supervision, concerned "Normal growth and psychological development of young children." The third, supervised by an Art Therapist and educator, dealt with "Artistic development of young children and the use of art media." These will soon culminate in her Thesis: "Considerations in the planning of a science curriculum for children ages 4 - 6."

Mrs. H. is also a science teacher who has worked for a number of years in private secondary schools. Believing that the nature of science education instills destructive values in the young she set as her goal the development of a "gender-free science" in which the preservation of the planet and its life forms is given far more weight than is ordinarily the case. Her Library paper, "Feminism: a force for change in the natural sciences," enabled her to think through implications of her position and, she says, helped her to learn to be more objective about her writing. Her first Contract, supervised by an historian, introduced her to "Foremothers in Science: American Women Scientists around 1900". Her enthusiasm for the subject caused her to seek others with similar goals, and she has since presented papers on this subject (and the following) at scholarly conferences at Princeton, Champaign-Urbana, and Albany. Her second Contract, supervised by a science educator, dealt with "A Feeling for the planet: Topics for research in the earth sciences," and her third, now in progress, has to do with "Making conections between science, technology and society" in order to develop "An informational resource for a curriculum for teaching science and social values". Her Thesis, which will be undertaken this summer, will be titled: Middle School Science: A new consciousness for a new curriculum." Mrs. H. has been awarded an Empire State Challenger Fellowship for Teachers to assist her in financing her graduate study.

Mr. I. is a professional editorial cartoonist (and alumnus of our University Without Walls program). His particular interests include terrorism, propaganda, and political image-making. His Library paper concerned "Wartime symbols in U.S. political cartoons: Vietnam, 1963 and 1973". At this point, his work on his first Contract, Political creativity: The image makers," is in abeyance. Mr. I is on a Fulbright in Japan.

Mrs. J., a physician assistant, applied in June of 1982 with the goal of studying "the Public Health area . . . . . in a course of study at a pace that suits my career and my capabilities." Her idea, prior to the Initial Study, was that she would work in History and in Medicine, thus satisfying our interdisciplinary requirement. Specifically, she thought she would study changes in the manner of providing medical care, projecting recent trends into the future. She planned, too, to undertake a "retrospective study of the average daily problems brought to a primary care adult medical ambulatory facility (where, of course, she was employed). In the course of her Initial Study this student refined her plan considerably. Her Library paper turned out to be on the evolution of a medical specialty in adolescent medicine from before 1960 into the 1980s. Compulsive as well as very competent, she produced a paper in excess of 80 pages on THE HMO Ambulatory Adolescent Outpatient, a study which appears to have been the first of its kind in drawing upon actual medical records and identifying four problems peculiar to adolescents: problems of stature, scoliosis, nutrition, and acne. Her supervisor, a biologist not given to overstatement, commented that the first 20 pages were worthy of publication. As far as I know the student did not take this hint. Her second Contract, which I (a social psychologist) supervised, concerned the design of a questionnaire for adolescents including issues of ethics, theories of attitude measurement, and data analysis techniques. Her third Contract, supervised by a Professor of Law, concerned "The physician as advocate/decision maker in adolescent medicine", and examined legal restraints and guidelines concerning the best interests and legal status of minor patients. Her thesis integrated the foregoing into a description and prescription for "Adolescent medicine as a specialty of an HMO."

Another student with interest in the medical field was Mrs. K., an RN who had been a camp nurse and hoped to teach nursing in a degree-granting nursing program. Her Library Paper in the Initial Study was a critical evaluation of the national influenza immunization program of 1976. Her proposal for the first Contract had to do with a study of varieties, theories, and modes of treatment of, depression. Wiser heads prevailed, however, and she was convinced to narrow the scope to "Evaluation of depression by the nurse practitioner." Like the previous student, she produced a work of more than 80 pages. Contract Two was concerned with the Nurse as Health Educator and addressed such varied issues as the need to be aware of cultural differences among patients, the variety of milieux in which health education takes place, and the importance of counseling skills among health educators. Her third Contract was a comparative study of the health systems of several countries and a consideration of the ethical ramifications of various strategies. Her thesis, "A Primer for the Camp Nurse" led to invitations to address the American Camping Association, a "Research Record" report in the American Journal of Nursing, and the long-sought teaching position.

Mrs. L. wrote "An evaluation of the effectiveness of materials used for a career exploration workshop" for her Initial Study Library Paper. For her second, she developed, implemented and criticized a career exploration workshop for adults. Her second Contract addressed "Theories of Adult Development and their implications for career planning," and her third Contract, in keeping with the interdisciplinary character of our program, was "An exploration of work through literature," in which she applied Maslow's theory of hierarchy of needs to an analysis of Arthur Miller's The Price and Death of a Salesman, and William Dean Howell's The Rise of Silas Lapham. Her Master's Thesis, which was an evaluation of the effects of a career planning workshop, appears to have been sufficiently impressive for its author to be hired by another of Hofstra's Colleges to present these workshops on a regular basis.

Conclusions

Students' reasons for coming to our Master's Program vary from pre-professional to intellectual, from teaching certification to exploration of an interest awakened (but left behind) in college or triggered by the women's movement, etc.. M.A.P.I.S. seems to provide many students with a kind of "psychosocial moratorium" by means of which they make a transition from one phase of their lives to another. This may be one reason why many do not finish. Their lives take a new turn and they no longer need the structure and support given by the program.

The high level of achievement of our students and alumni (and the high level of attrition) attest to the value and rigor of the program. The students' unusual qualities make them fun to teach and to learn from.

A HIGHER EDUCATION MODEL FOR INTEGRATED IN-SERVICE TRAINING: THE WESTMINSTER COLLEGE MASTERS PROGRAM IN EDUCATION

RONALD B. COHN

Successful training programs in private industry, health care, and government share three major characteristics. First, they are precipitated by data which is generated from a thorough needs analysis. Second, they list specific performance, knowledge, and skill outcomes as necessary criteria for training mastery. Third, through observable results of the training, immediate supervisors monitor the trainees' subsequent performance with appropriate on-the-job feedback.

Each of these characteristics should not be viewed as an isolated training component. Successful training must be generated as a result of a prior needs assessment, specifying which skills and behaviors are in need of upgrading. Employees who recognize that the training available will increase their own performance will more likely "buy into" the experience. During the training event, trainers need to share specific skill outcomes so trainees will understand what level of mastery is desired or required. These skills are most effectively developed through the three-step training model of demonstration, guided practice, and practice with feedback. Lastly, taking the recently learned skill into the workplace to be "coached" in its utilization by supervisors is the culminating practice for a fully integrated training experience.

The traditional in-service training of teachers generally does not conceptualize these three characteristics into an integrated whole. Occasionally, in-service training is organized and implemented through the results of prior needs assessments, yet rarely within the context of specific performance outcomes. Even rarer is the subsequent performance monitoring of the recently acquired skills by supervisors. Given the frequency of occurrence for each effective training characteristic within in-service education, the chances for the integration of all three are fleeting at best.

Graduate education also pays only rare attention to these three characteristics. Only in the last decade have Masters programs in education paid attention to the teachers' agenda of effective teaching. The Master of Education degree is replacing the content specific Master of Arts as the preferred educational practioner's degree in colleges and universities. Mouritsen (1982) verified this in a survey finding that 98% of the masters degrees awarded to teachers in Utah, for example, were Masters in Education.

The content of even these Masters of Education programs, however, only minimally reflects the three criteria for training success. Some universities ask students to complete a clinically based masters project, yet rarely does their coursework reflect clinical application. Even less likely are classes generated from students' actual needs or graduate faculty field supervising specific skills or outcomes. A different graduate model is needed.

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A fresh approach is also needed for school district in-service training. Teachers frequently shun in-service education. Their reasons range from inappropriate topics and skills for their professional development, to inadequate performance follow-up, to being held after school, to their not being involved in the generation or implementation of the training event. Lawrence (1974) pointed out the characteristics of effective in-service education experiences and Cohn (1985) replicated the study within the training arena. A number of similarities arose with teachers and trainers exhibiting parallel criteria for effectiveness while they were being trained themselves. Some of these similarities included:

1. Training sessions/programs were highly effective when participants were actively involved during the experience and contributed to it.

2. The pervasive disdain for lecture based training.

3. Self-paced individualized training was reported as ineffective for inducing instructional behavior changes.

4. Training programs/sessions which emphasized trainer led demonstrations, supervised trials, and subsequent feedback monitoring were effective.

5. Programs sharing materials, methods, and ideas with immediate application were more helpful than those which had trainees store up ideas and behaviors for future use.

6. The longer a teacher/trainer has been in his field, the less patience he had with "poor" training experiences.

7. Effective training events are those which echo the results of the prior needs/skills assessment.

8. Training sessions/programs are more effective when they are an integrated educational effort, rather than a "single shot" isolated plan.

Since the industrial training model shares so many vital characteristics with effective in-service education, then the question is: "How can higher education effectively use the industrial model in the professional development of teachers?"

The Westminster College Masters Program in Education

The Graduate Faculty of Westminster College of Salt Lake City views the Master of Education Program as both humanistic and developmental in perspective. Because all candidates are practicing teaching or training professionals, the program's intent is to build upon their already exhibited instructional strengths. Learning then becomes an active, self-regulating process, begun with self-assessment and based upon individual need.

The Master of Education Program consists of five overall areas: theory courses, clinical workshops, integrating seminars, field supervision, and the masters project. These experiences are intended to provide a balanced perspective on theory and practice.

Theoretical Courses

The 10 semester hour theoretical component involves coursework providing a philosophical framework of humanistic and developmental psychology and educational foundations which enable the student to answer the questions, "How and why do I teach in my present fashion?", and "How and why do people learn?"

Clinical Workshops

The 14 semester hour clinical component involves workshops taken on Saturday mornings. These practical, hands-on experiences aid educators in expanding the instructional tools necessary for quality learning and instruction. These workshops are generated each semester from the self-evaluated needs and interests of graduate students currently enrolled, and offer specific skill outcomes with performance expectations. The major clinical competencies for students include:

1. Ability to develop curriculum within the instructional design process;

2. Skills in developing instructional tasks which are developmentally appropriate for learners in both the affective and cognitive domain;

3. Developing teaching skills utilizing at least three different instructional models;

4. Ability to integrate discrete content areas into integrated units of study;

5. Successful use of at least four different models for student performance evaluation.

Graduate Seminar

This two semester hour seminar requirement entails enrolling in a seminar in both the first and third semesters of graduate coursework. The intent of the seminar is to provide:

1. an opportunity to integrate theoretical concepts with clinical implementation;

2. a network of peer support;

3. a context to examine and refine ideas for the masters project.

Field Supervision

The supervision component coincides with the semesters involving the graduate seminar. The seminar leader or advisor will make periodic visits to a student's professional context offering feedback, suggestions, and overall impressions of respective instructional behavior. The visits will focus specifically upon the skills developed in the clinical workshops. with the supervisor observing instructor performance.

Masters Project

The four semester hour Masters Project is meant to be an integrating, culminating, and useful experience for the graduate student. The student completes a project that focuses on the instructional setting and in order to provide meaningful professional growth. Projects are usually clinical, and may involve elements of curriculum development, evaluation, or student assessment.

All five of the program's components -- theoretical coursework, clinical workshops, integrating seminars, field supervision, and Masters project -- reflect the eight previously mentioned effective training characteristics. One half of the courswork is in clinically based workshops where students develop teaching skills during four hour time blocs. Modeled in these workshops are trainer led demonstrations with specific skill outcomes followed by trainer supervised participant practice. Additionally, students share instructional applications with one another, expanding their instructional repertoire.

The field component completes the skill development, guided practice, and supervisory coaching cycle necessary for effective training. With the university supervisor's assistance, the theory, practice, and feedback skill development system becomes a fully integrated learning and instructional model.

During the program's decade of existence, approximately 200 students have graduated, with one-half responding to a recent follow-up survey. The questionnaire provided among other data, a clear indication of student perceived program strengths. The three most frequently mentioned strengths were 1) the applicability of skills within students' instructional context, 2) the clear program integration between theory and practice, and 3) the importance of supervisory coaching during field visitation.

The Westminster College Masters Program in Education, by incorporating the characteristics of effective training, has been extremely successful. For example, the self evaluation process for workshop/generation parallels widely used industrial needs analyses. Moreover, each workshop lists specific performance outcomes and when coupled with supervisory coaching, all skill development is both field monitored and linked to college coursework.

Higher education needs to pay attention to theoretical constructs, while specifically engaging in skill development and monitoring of subsequent student performance. Colleges and universities can find valuable resources for the professional development of teachers by looking to the characteristics of all effective training programs.

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LITERARY THEORY INTERROGATES THE STUDIO ARTS

Michel Oren

The boundary between theory and practice within a discipline may occasionally be so difficult to cross that theory has to bring in an ally from outside the discipline to affect its own practice. A case in point is the provincial state university art school which recruited me, a specialist in contemporary literary theory, to help broaden and bring up to date in some respects the studio production of its students. But this project rapidly got caught up and engulfed in the change that is overtaking art history and the art world in general.

"Art history is in crisis, and twentieth-century art history is the arena where the crisis is perhaps most evident," writes the well-known art historian and critic Donald Kuspit in the March 1987 Art Bulletin. "The whole decorum and topography of art history must change. It must understand itself to exist in a field of humanistic operations, as one of many cross-fertilized investigations....It must stop ritualistically doing business as usual, and ask itself what its business is about."[1]

The crisis has partly to do with a paradigm shift that is struggling to take place, away from an older formalist and "intrinsic" methodology preoccupied with the way paint is laid down, the type of imagery and its depth and composition and whether it respects the picture frame, and toward "extrinsic" methodologies derived from structuralist, phenomenological, psychological, or Marxist aesthetics. These extrinsic critical methods, brought from other disciplines to bear on art history, have been besieging the formalist citadel for some time, but they recently received reinforcements in the form of a newer method which may be called "deconstructive" and which was well adapted to incorporate most of the others --even to claim to supersede them--in various eclectic critical mixes which have come to be known as "poststructuralist." Feminist art criticism, to the chagrin of some feminist art historians, has blended well into the poststructuralist mixes. To attend the sessions on 20th century art at the College Art Association annual meeting these days is to experience disciplinary schizophrenia: The sessions in the grand old tradition of art history are formalist insofar as they employ critical methodology at all, while the poststructuralist sessions in the brilliance with which they flash between critical approaches and in the sophistication of their terminology are not likely to be even intelligible to some of the old guard, should they wander over. And the disparity between the premises of the new and old criticism, their assumptions about what the enterprise of art historical studies is all about and hopes to accomplish, makes it difficult to bring the two camps closer.

It happens that contemporary art, that is, the studio production and marketing of painting, sculpture, and other visual arts media, is also in crisis, and the relation between the two crises is not immediately clear. The art world--the artists themselves, the art magazines and critics who publish in them, the galleries, the museums with their curators and trustees, the collectors--understand that in some way the avant-garde has run out of territory to explore, the field has been exhausted, plowed over

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and over, everything been done. And if an artist should invent some new, difficult, or even antagonistic work, it would soon be co-opted, copied endlessly in denatured forms with all its venom and spirit extracted or domesticated. From the Romantic movement artists learned that their vision might extend beyond representation and that the best among them might be visionary seers or prophets, leading humanity in its upward struggle, heroically struggling themselves against the resistance of their materials and the vast public, occasionally achieving transcendence in their work. Today transcendence is out of fashion. There are not many buyers for it, or if they buy, they do so for other reasons. Artists whose works sell well become part of the worlds of high fashion or finance, the works replacing oil stocks as profitable commodity investments. Their galleries may discourage them from exploring new styles lest that affect sales. Powerful collectors such as the Saatchis may buy their entire output or, if the artists refuse to sell, may ruinously dump numbers of their paintings on the market.

Perhaps the relation of the two crises is that both are symptoms of the "postmodern" condition. A new cultural period, the postmodern, began somewhere between the late '60s and 1980 along an irregular edge in different places and disciplines. The heroic aspirations of the previous generation, the modernist masters--in art the Cubists, Bauhaus, even Surrealists--were suddenly out of fashion. This is not to conflate the two crises by saying that poststructuralist criticism sprung into being to serve an expanded art market which because of modernism's exhaustion had turned from it into the past. The cultural politics of postmodernism is double-edged. There is indeed a neoconservative postmodernism, a "postmodernism of reaction," argues critic Hal Foster, but there is also a postmodernism of resistance and opposition that "seeks to question rather than exploit cultural codes, to explore rather than conceal social and political affiliations."[2]

Such is the vehemence of the postmodernism discussion that the teaching project I am about to relate has been almost engulfed by it. A forward-looking but practical Dean having taken command at East Carolina School of Art almost four years ago now, he at once engaged a panel of well-known artists and critics to visit and evaluate the School. One conclusion from their report: "There is an emphasis on technique at the expense of content. Studio is emphasized, history and theory are not."[3] In part this situation had resulted from the fact that formalism, the reigning critical methodology when most of our studio faculty was trained, by stressing the formal purity of every field of art, severed the fields from each other and all of them from the conceptual practice and the real life experience that had informed them. Our students were now producing with great technical expertise art objects whose rationale in the cultural life of our times they did not very much understand. Our 38 full-time faculty members were heavily tenured in "crafts" specialties such as weaving, ceramics, and metalworking or in applied arts such as environmental and graphic design, and most of them had little acquaintance with or use for contemporary critical theories of art. The fact that there were only three art historians gave that department little political clout in the School and made it in effect a service department for required surveys and for those few studio faculty who encouraged their students to work with it. Nevertheless when there was an opening for an art historian the Dean advertised for a person to teach contemporary art and criticism and "to relate the art of these periods to significant aesthetic and critical issues as well as to the wider cultural and social forces out of which they develop." It was in fact reasonable for him to select someone who, although he had training and background in art history, also had a Ph.D. in literature and the experience of having done summer institutes, respectively, in structuralist and semiotic criticism, and in poststructuralist literary theory, since out of all the arts, critical theory had been most elaborated in literature. Many varieties of post-structuralist criticism had been developed in France in the wake of the student revolts and subsequent cultural efflorescence of 1968, and had been imported via literature departments in New Haven and New York.

East Carolina University, third largest component in the University of North Carolina system, is about two hours drive from Durham or Chapel Hill, a distance sufficient to isolate its 14,000 students intellectually. Six or seven hundred of these students are attached to the art school, one of the four largest in the South. For art students they do not seem very bohemian; the upper level and graduate students work hard in their studies, sometimes through the night so that they drowse in morning art history classes. The Dean, a practicing sculptor with a Ph.D. in art history, had made it clear that he wanted a practical course in contemporary art criticism for studio graduate students, one that could train them to evaluate the work of other artists as well as their own work, which they might thereby strengthen. One problem this presented is that contemporary literary criticism is much less given to evaluating works, in the sense of telling whether they are good or bad, than interpreting them, that is, excavating all their possible layers of meaning underneath the obvious surface. Probably this is because literature, unlike art, is not an investment commodity. A museum curator had better be sure of having "a good eye" before investing $100,000 of the trustees' money in a work whose paint is not yet dry, and this need for quality becomes more insistent as criteria--in this time of poststructuralist criticism--grow more slippery. It may be that students could learn more by learning to interpret their own and others' works, and that quality would follow of its own from this understanding.

At any rate it was necessary to find a text for the art criticism course, but amazingly there was nothing really appropriate--neither an explanatory survey comparable to Terry Eagleton's Literary Theory, An Introduction, which romps through all the methodologies, knocking them over one by one like dominoes, nor an anthology of exemplars. There were two collections of poststructuralist essays on theoretical aspects of postmodernism. Finally I settled on Richard Hertz' anthology, Theories of Contemporary Art, whose critical essays at least focused on specific art works although not through the lens of specific methodologies.[4] Fragments of structuralist or psychoanalytical methods were embedded in certain essays, never with the intent to tease out meaning from the works but only to argue that they should be relocated at more advantageous nodes on the art historical tree--next to Abstract Expressionism, for example, or in the expanded field of Postmodernism. Most of these essays looked backward to the pre-eminent formalist American critic of Modernism, Clement Greenberg, in order to claim by implication his approval, or to repudiate it, or to explain that his premises were everlasting or passé;

and some of them looked forward to Postmodernism to prove just the opposite, so we were in the postmodernist soup again, willy-nilly. The degree of these essays' obsession with claiming a prestigious historical place (instead of with meaning) as a way of legitimizing their favorite artists was truly impressive, as was the way, in true postmodern fashion, they appropriated chunks of what had been cohesive methodologies in their scramble for that place.

It seemed well, therefore, to begin the course with discussion of a couple of Greenberg essays, profusely illustrated with slides, for art students can always focus better on ideas if at the same time they have slides to watch. Then for several weeks the six graduate students and I read essays in Hertz and argued whether the writers had correctly grouped contemporary artists, and whether to grant their favorite groups the places claimed for them on the art historical tree as Greenberg had described it. The students became alarmed at a recurrent refrain in these essays--that the field of art was exhausted and that contemporary artists were hard put in their work to navigate between co-option and banality--and asked to skip to less "pessimistic" readings. Suddenly we stumbled on two essays that cried out for an explanation of structuralism: I brought in Eagleton's chapter on "structuralism and semiotics" but had a hard time finding purely structuralist analyses of contemporary Western art by art critics (rather than analyses of Third World art by anthropologists) and finally fell back on my own earlier article structurally analyzing Maciunas graphics and multiples of the '60s. The same problem arose when we had a visiting Marxist critic: His own critical efforts may have been purely Marxist but there was very little other published criticism of contemporary art about which that could be said. In literature, structuralist and Marxist analyses were still being produced, but in the Hertz anthology all that remained were fragments, references to the structuralist Jakobson, arguments resonant of the Marxist Frankfurt School, all now part of the poststructuralist critical mix. That it should be so in a way made sense, for since both schools were pragmatic, they had come to find themselves strongest in combination with other methods. Our visiting Marxist critic was perhaps slightly anachronistic. In any case my students warmed to neither methodology, finding structuralism cold and Marxism with its talk of "reification" and "commodity fetishism" conceptually formidable.

In the case of phenomenology I was luckily able to provide a five-step set of directions (abstracted from Spiegelberg) and an analysis of Richard Lindner's paintings that might have been done by following such directions. The fact that Bachelard had analyzed space such as it appears in works of art and Poulet the entire literary corpus of an author using phenomenological approaches that were less than rigorous also made this method seem less formidable. We also briefly discussed the gaze or look of the represented subject, a phenomenological inquiry opened by Sartre and pursued to different conclusions by John Berger, who found in the nude who returns the spectator's gaze a refusal of sexist domination, and by Michael Fried, who in a position allied to Greenberg's dismisses the subject who looks out of the canvas as an example of that "theatricality" which contaminates the purity of painting as a fine art. A student who had been a professional illustrator for 11 years and had returned to painting and enrolled in our school after seeing an exhibition ("The

Mystic North") of Scandinavian and Canadian landscape painting was eager to explore her attraction for this type of painting. Saying that she had not received my type of comments from her painting teachers, she did a phenomenological analysis of the work in the exhibition catalogue, with results that I pointed out could equally well have been arrived at with a structuralist approach. Asked to invent a scenario which could take place in those northern landscapes, she referred to three short stories, two of which turned out to have Mediterranean locales. She is now investigating the "sublime," a kind of 18th century landscape which according to critic J.-F. Lyotard was revived in the color field paintings of Barnett Newman and has found new life in Postmodernism.[5]

Another visiting critic arrived, claiming to work a-methodologically and totally by intuition, and lecturing provocatively that "My Trash is Better Than Your Art." In introduced some non-technical types of psychological criticism bearing on artistic creativity, and suggested that some artists in the class had in a psychoanalytic sense been "resisting" these systemic critical methodologies out of fear that they might affect their creativity. One student began a phenomenological analysis of his own sculpture, another decided to analyze the intuitive critic's lecture to expose its contradictions. A schoolteacher made a presentation showing how current philosophies of art education do and do not correspond with the critical methodologies we had employed. The situation suggested by the title of this paper had been reversed, and the studio arts were interrogating literary theory in full force. It was exciting to be able to respond. Hardly any time remained for the presentation of deconstructionist and feminist theories. Suddenly Spring burst over the art school. Graduate assistantships for the Summer were about to be awarded: One of my students, convinced that certain others were asking more than their fair share, did a sculpture on the front lawn of the art school consisting of two seven-foot 2 x 2" posts set parallel but crooked in the ground with a few feet of rope across the tops to which were clothespinned a pink and a blue blanket--"institutional security blankets," he explained. "Assistantships," "Free Studio Space," "Excellent Facilities" were painted in black on the white posts. When some annoyed graduate students took him to task for blaming other students exclusively, he added "Tenure" and "Permanent Positions" on the posts so as to annoy faculty and students impartially. He deeply regretted that there were no young assistant professors up for tenure with whom he could have debated the merits of the tenure system. For my part, unfocused though this piece may have been, I was gratified to see that it was the postmodernism of resistance and opposition--and not the other kind--that had finally sprouted on my campus.

Notes

1. p. 117.

2. Hal Foster, ed., *The Anti-Aesthetic, Essays on Postmodern Culture*. Port Townsend, WA: Bay Press, 1983, xii.

3. The panel included Vito Aconcci, Donna Dennis, Peter Plagens, Henry Sanoff, Patrick Whitney, and Jon Ryburg.

4. The two collections of essays on postmodernism were Brian Wallis, ed., *Art After Modernism: Rethinking Representation*. New York: New Museum of Contemporary Art, 1984, and the one edited by Hal Foster (see note 2

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5. "The Sublime and the Avant-Garde," Artforum, April 1984.

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DEVELOPING AN INTERDISCIPLINARY GRADUATE DEGREE FOR ADULTS

James S. Pula

Abstract

The Master of Arts in Social Sciences degree program was developed by the School of General Studies and Professional Education (SGSPE) at the State University of New York at Binghamton to provide the curricular flexibility which many adult students require for a meaningful educational experience. Working with a faculty advisor, students entering the program design an individualized plan of study which recognizes his or her unique educational and experiential background, and links it with the student's personal and career goals. The program of study may draw upon a wide range of graduate courses in the social sciences offered through SGSPE, but it may also incorporate appropriate disciplinary courses from any other school within the University, independent study courses, internship experiences, or relevant transfer credit from other institutions. The result is a degree program which builds upon past educational and career experience to provide a degree program that will assist in achieving his or her goals.

Introduction

During the present decade higher education has been beset by a plethora of prophets whose visions of the future have been based upon the twin pariah of rising costs and declining pools of high school graduates. Faced with bleak forecasts of impending fiscal ruin, many colleges and universities have suddenly "discovered" the adult learner as an untapped market that can be used to offset the revenues lost to declining enrollments of the "traditional" eighteen-year-old undergraduates. Indeed "reducing barriers" has become a national buzz-word (or is it buzz-phrase?) among educators striving to convince one another and the general public that they have a genuine interest in assisting adults to realize educational goals.

In general, the "traditional" non-traditional approaches to "reducing barriers" have focused upon delivery mechanisms, emphasizing variables such as time, place and credit alternatives. Institutions have offered classes during the evening hours and on weekends, have scheduled them to meet onsite at businesses and in other locations where adult students would have easy access, and have begun allowing the accumulation of credit through such alternatives to class-

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room instruction as competency examinations and credit for experiential learning. In most instances, however, these attempts at "reducing-barriers" have not extended to content and curricular revision.

The State University of New York at Binghamton lies just north of the Pennsylvania border along Interstate 81. There are no other four-year colleges or universities within forty miles of the campus, thus competition for graduate level students from among the surrounding community is virtually non-existent. Consequently, in developing the Master of Arts in Social Sciences (MASS) degree, the University's primary objective was not to be competitive in obtaining a high market share of students, but rather to develop a Masters-level degree program that could effectively serve an adult population with diverse educational backgrounds and personal and career goals.

The two basic premises upon which the program were founded were that the adult population consists of a number of individuals who (1) each have their own set of unique educational, career and life experiences, and who (2) each have their own set of unique personal and career goals. Given the fact that, unlike the traditional case of the high school graduate who moves immediately on to college, the adult population to be served did not have a relatively uniform educational or experiential level, it seemed obvious that any degree program designed to serve this group must acknowledge and accommodate wide variances in educational preparation, work experience, family responsibility, and other factors which made for a very heterogenous group. If the University was, in the words of the Carnegie Commission report, to "put the needs of the learner ahead of the needs of the institution," these factors would need to be reflected in both a flexible admission policy that provided alternative entry criteria, and a flexible curriculum which recognized that each participant did not enter equipped with roughly equivalent knowledge and skills.

Admission Policy

In the first instance, an admissions policy was developed whereby adults who had been away from higher education for a number of years would not be penalized for lack of recent academic experience. The admissions criteria for the MASS program are as follows:

1. Possession of an earned baccalaureate degree.

2. A score of 1,000 on the GRE; or an average of B in the last year of undergraduate study; or an average of C+ in the last two years of undergraduate study; or grades of B or

above in two graduate courses taken within the last five years.

3. A statement of educational and career objectives.

While possession of a baccalaureate degree was deemed to be a proper prerequisite to graduate study, there was also a general recognition that it makes little sense to require returning adults who may have been away from academia for a number of years to sit for the Graduate Record Examination. Consequently, the University-wide graduate school policy of requiring GRE scores can be waived, upon request, for entry into the MASS program. In its place, as evidence of the probability of academic success, applicants may substitute transcripts of undergraduate work. For those adults who may have had marginal academic performances at the undergraduate level, but had since proven successful in career and family responsibilities, the admission criteria recognized this maturtation by allowing applicants to enroll on a non-matriculated basis in two graduate courses at SUNY-Binghamton (or elsewhere). Upon successful completion of these courses with grades of B or better, the applicant would become matriculated.

Finally, the admission criteria required that applicants for matriculated status submit a statement of educational and career goals. This statement served a dual purpose. First, it identified applicants who would be better served by more traditional degree programs with fixed curricula such as the MSW for those who sought positions as social workers or the MBA for those who sought to rise in the competitive world of business administration. Applicants whose statement of objectives gave clear indications that they would be at a competitive disadvantage without a specific "recognized" degree were presented with the options open to them and advised of the advantages of matriculating in the program that could provide them with the best qualification for their chosen goal.

Secondly, the statement of educational and career objectives was used by the applicant's faculty advisor as a basis for development of the student's individualized plan of study.

Flexible Curriculum

The purpose of the MASS program is to provide an educational alternative to adult students within the traditional University setting. As such, there is a recognition that for adult learners the relatively fixed curricula of traditional academic programs are often unresponsive to individual variations in background and preparation. Thus, MASS is designed as a learner-centered, problem-centered, multidisciplinary program. MASS recognizes that student involvement in the development of the academic process is essential to a successful learning experience; consequently it relies heavily upon direct student-faculty consultation.

Each student entering the MASS program is assigned an academic advisor determined by the general career track that the student is pursuing. Under the guidance of the advisor, the student identifies his or her own strengths and weaknesses in light of the personal and career goals noted in the statement of objectives submitted along with the admissions application. Together, the student and faculty advisor, often with the assistance of practicing business and professional people from the community, develop a unique plan of study that will provide the educational and skills development necessary for the student to fulfill his or her personal and career goals.

The goal of the MASS program, stated very succinctly by one of its off-campus evaluators, "is not to train students to become social scientists but to become social problem solvers." The MASS program emphasizes the integration and application of knowledge, methodologies and perspectives from various disciplines to develop leadership skills. To do this, particularly in view of the wide diversity in its student population, MASS attempts to harness the resources of the University and make them available to students who can benefit from them. Thus, the only curricular requirements are that the student enroll in two MASS "Problems in Society" courses. A number of these courses are offered each semester dealing with the application of knowledge and skills to current problems and issues in areas such as business, health systems, human services, drug and alcohol abuse, gender issues and so on.

Students in the MASS program are required to complete 32 credit hours of graduate work. Aside from the "Problems in Society" courses, plans of study may include graduate courses from any of the five schools on the SUNY-Binghamton campus (Engineering, General Studies and Professional Education, Liberal Arts, Management, and Nursing). Thus, a student who works as a counselor in a local human service organization, for example, may qualify for promotion by completing a MASS degree that includes the study of advanced counseling techniques from the psychology program, the study of supervision and office management from the School of Management, and the study of contemporary course social welfare policy and applications from the School of General Studies. A person interested in human resourse management might combine work in counseling, personnel administration, labor negotiation, training and development, and educational policy.

Recognizing that a single University may not be the repository of all knowledge, the MASS program also allows students to transfer up to eight credit hours of work from other colleges or universities which might offer specialized courses applicable to the student's goals. Further, there are independent study opportunities for students who wish to engage in self-directed learning in areas defined in collaboration with a faculty mentor. Those students who lack substantive practical experience in their career concentration are encouraged to design an internship as part of their plan of study.

Given the flexible, self-designed nature of its curriculum, MASS offers significant opportunities to adults to pursue meaningful graduate study without the peripheral "red tape" associated with many traditional graduate programs.

Advantages and Disadvantages

As with all educational programs, MASS has a number of advantages and disadvantages which students, faculty and institutions should consider before embracing the model. The student-centered nature of the program provides a responsiveness to real educational needs, while at the same time allowing the student to "buy into" development and implementation of the educational plan. This incentive has led to a very high rate of completion, and to excellent student opinion reviews. Further, the identification of real goals, the evaluation of individual strengths and weaknesses, and the development of a plan based upon these assessments, makes the entire educational process more meaningful to the student both as a student, and as a graduate applying for career positions.

On the negative side, there are disadvantages which should not be viewed lightly. First, the Master of Arts in Social Sciences does not carry a great deal of "name recognition" and thus may not be helpful to students in competitive fields such as business where the MBA is a virtual "union card" for many positions, or professional fields such as social work where the MSW is similarly viewed. Further, the nature of the MASS program relies heavily upon extensive interaction between faculty and students, thus making it very "labor intensive." An institution short on resources and faculty time should think twice before embarking on such a program.

Conclusion

The basic mission of the MASS program is "to meet the academic and practical needs of women and men who aspire to positions of leadership and responsibility in social science-related fields." During its last external review, evaluators noted that "flexibility is an important strength," and that "This program does an impressive job of working with part-time adult learners." More importantly, one reviewer concluded that "the MASS students we encountered ... were the most enthusiastic, most loyal graduate students I have ever met."

EDUCATION IN 2006: INTERDISCIPLINARY Ph.D.S

Marlene A. Springer/

In the long-range plan for the University of Missouri, Chancellor George A. Russell of the University of Missouri-Kansas City presented to the Missouri Board of Curators an innovative approach for graduate education at University of Missouri-Kansas City. The plan proposed a transformation of existing Ph.D. programs into five degrees encompassing research beyond traditional academic units: the Ph.D. in Chemistry will be converted into a Ph.D. in the Natural Sciences, incorporating research and a program of study from the Basic Life Sciences, the College of Arts and Sciences (e.g., Chemistry, Biology) and the School of Pharmacy; the Ph.D. in Psychology will be integrated into a broader degree in the Social Sciences, which will include all the social science units on the campus; the Ph.D. in Mathematics will be diversified to include Computer Science, Physics and Engineering; the Ph.D. in Educational Administration will be enhanced to include other areas of administration through a partnership with the School of Business and Public Administration and Pharmacy (the Pharmacy Administration program); and a Ph.D. in Humanities will be developed to encourage research in the fine and performing arts, as well as traditional areas of study such as History and Philosophy. In developing these degrees, the faculty at UMKC has attempted to be innovative while keeping a solid awareness of the important academic traditions associated with the Ph.D.; to be aware of the needs of the state of Missouri while maintaining a clear concern for the individual interests of our students and the people for whom they will ultimately work; and to reiterate its belief that a quality Ph.D. degree must contain a strong commitment to research into new areas of scientific knowledge and human understanding.

The faculty, in this development stage, found itself in good academic company, and on solid philosophical ground. Rockefeller University, one of the stellar universities in the United States, has an interdisciplinary Ph.D. in the Natural Sciences, and its lack of a fixed curriculum and its strong emphasis on individualized research has partially served as a model for the UMKC degrees. The University of Alabama at Birmingham offers a degree in Medical Psychology, jointly sponsored by the School of Medicine and the Psychology Department; the State University of New York at Albany's College of Humanities and Fine Arts has developed a Doctor of Arts degree; the University of Maryland offers a variety of interdisciplinary degrees, especially in Environmental Studies; and Stanford, Johns Hopkins, and others all offer some form of interdisciplinary work. Clearly, graduate institutions in this country are seriously developing interdisciplinary approaches to graduate education. The UMKC degrees will not only place us solidly in this

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tradition, but by incorporating the interdisciplinary focus into distinct degrees encompassing all major disciplines, will offer a unique approach to graduate studies.

The development of these programs comes in response to what foresighted educators have recognized as the most rational and innovative approach to the complex social needs of the twenty-first century. Lewis Branscomb, (1986) Professor and Director of Science and Technology and Public Policy at the John F. Kennedy School of Government, in his article "Science in 2006," offers an intriguing analysis of just what graduate education will be within twenty years. As Branscomb writes with all the virtues of foresight, he notes that scientists in the year 2006 have to share equipment, for "what chemists could get a grant big enough to pay for a dozen of these new tools, when each one costs a quarter of a million dollars?...In 2006 you share, or you can't compete." (p.657). Nor is equipment the only common ownership; the research community of 2006 has also undergone profound changes for, "to make important progress you not only had to master these tools of a broad range of disciplines; you had to draw on the ideas and points of views of many disciplines." This reintegration of disciplines into a broader perspective is not limited to the sciences. Modern geography, for example, in the year 2006, will have recognized that only through an integrated view of people and the planet -- the accumulation of knowledge from ecology, geomorphology, social anthropology and economics -- can human beings begin to understand their "fragile planatory home." The Arts and Humanities will have had to develop an equally tolerant view toward their own fellow specialists. The Social Sciences, though slow to give in to the reunifications of disciplines in Branscomb's futuristic university, nonetheless had to overcome their analytical distrust of the intuitive creative process which is at the heart of scientific and artistic progress, and recognize that bridges to the natural sciences had to be built - especially if one is ever going to come near any real understanding of the human brain. Consequently, by the year 2006 Branscomb speculates, "you could not earn an Ph.D. in computer science without studies in depth in psychology. To design machines to help people, you had to know something about people."

Branscomb's vision goes on to outline bureaucracies (the T. Boone Pickins Institute where there are no departments and committees award pan-disciplinary Ph.D.'s), a peer-review system that is based on a researcher's past record and a willingness to train young scholars, and tenure and promotion systems that had to redefine "publish" in a system where research was often incorporated in school data collections and recorded in magnetic optic disks. His prophecies are not only fascinating, but startlingly realistic--and even a brief survey of graduate education today proves that the year 2006 is arriving as rapidly as our technologies are developing, and more rapidly than our educational systems are changing.

The Ph.D.'s proposed, therefore, offer a way to make an orderly and exciting transition into a new century. Admittedly, such experiments require tolerance, flexibility and resources. The costs of these new programs are minimal relative to the unlimited possibilities for enhancing the intellectual climate of the university. Moreover, pragmatically, these costs--expanding library holdings, hiring new faculty, increasing GTA stipends--are inevitable if any university is to have a viable graduate program. It is better to invest in the future than pay for the past.

The five degrees themselves are as unique as the disciplines they incorporate, but they do have some commonality. With some allowance for the structures already in place in the various schools at UMKC, all the degrees depend upon a faculty predetermined to be qualified to sponsor doctoral work as a core unit for offering the degree and ensuring high academic quality; all degrees have an administrative structure that has included a coordinating committee (working in concert with the chief graduate officer) to oversee graduate programs; all have a faculty admissions committee; and all have individualized supervisory committees for each student. The degrees also share elements of curriculum, for each has an interdisciplinary component in the form of courses or laboratory assignments, each has a qualifying/comprehensive exam for admission to candidacy (taken after competencies have been established and as the dissertation research is begun), all include a major research project, and all require a dissertation examination once the research is completed.

Despite this commonality, there are, of necessity, discipline-specific qualities that ultimately will have to be considered. For example, accreditation requirements for licensure degrees must be maintained; transcripts must clearly indicate the student's areas of emphasis within the degrees, so that other institutions and prospective employers can have a familiar way to identify the depth of a student's work as well as its breadth; library resources to support the disciplinary content of the degrees must be in place. These challenges, however, can be met: careful development of individual programs can satisfy accrediting standards; transcripts are usually campus specific and can be revised; library resources can be obtained through high technology information transfer, supplementing the tradition accumulation of actual texts. As the degrees are refined and implemented, new questions will inevitably surface, especially since what is presented here are deliberately broad outlines of minimum requirements, allowing for academic flexibility in curriculum and a basic confidence in the fine competence of the faculty so crucial to these innovative degrees.

Though these degrees are currently in the proposal stage, and much work remains to be done before they are actually implemented, many challenges have already been met, much prejudice overcome. There is little question that initially the faculty found the degrees threatening. Sacrosanct disciplinary barriers were being stormed, a research faculty was being singled out, degrees unlike their own were being proposed. Visions of economic Armageddon for students were conjured, demands for professor-specific degrees revealed the baser natures of some of our faculty. Conversely, many faculty realized that the degrees offered them a way to focus their work on truly interested students; and to have direct involvement with the curriculum development for their proteges.

Moreover, once put to paper, the degrees themselves are not as frightening as they initially appear. I have attached, as a sample, the degree in Natural Science. To briefly summarize, it requires that students be admitted to the program by the Graduate Committees of the academic units, in relation to their apparent interests. Minimum admission standards and policies will be decided by a Coordinating Committee and details related to the admission process will be carried out by each participating department, division, or school. These standards must be in compliance with University-wide regulations.

Following admission, students will typically enroll in interdisciplinary courses and emphasis area courses. During the first year, they will also perform laboratory research rotations, appropriate to their and the faculty's interests, as a means of being introduced to research and as an aid in the selection of a research advisor. Although students will take different courses, and rotate through different research laboratories of qualified faculty in their chosen emphasis areas, the following requirements must be satisfied:

1. The student must have interviews with at least six potential faculty research advisors of his or her choosing in at least three different emphasis areas.

2. The student must spend a period of time in at least two Doctoral Faculty members' laboratories, performing lab work, learning about the research interests of the faculty, and being exposed to different methodologies and approaches; rotations will be chosen on the basis of information provided about the current research activities of the faculty in consultation with the unit Graduate Committee. To promote development of interdisciplinary skills, one rotation must be outside of the student's emphasis area. Students will select research advisors based on their interviews, rotation experiences, coursework, and research interests, subject to approval by the faculty member and the unit.

3. Either through formal courses or by individual study, students must develop basic competencies in either statistics or computer applications appropriate to their area of interest.

4. Students must take the required courses for their emphasis area or be exempt on a basis of previous experience; students may be required to take courses to remediate deficiencies in their backgrounds.

5. Students are required during their studies to participate in interdisciplinary seminars and literature discussion groups where faculty, students, and outside speakers will present current research. Students are expected to attend such presentations, and they will develop the skills required to present their own work or discuss the work of others, according to guidelines established by the Coordinating Committee.

6. During the first year students must take a one semester interdisciplinary seminar course that will consider the history and philosophy of science. Familiarity with great discoveries and ideas in several disciplines will acquaint students with the historical, philosophical, and cultural background that influences scientific inquiry.

7. Students must complete two semesters of residency.

8. Campus and University guidelines for graduate studies must also be satisfied.

Within the context of those general requirements, the student will have program of study. Upon recommendation by the faculty advisor and the unit's Graduate Committee, the Dean will appoint a Supervisory Committee for each student. The student, advisor, and committee devise a mutually satisfactory Program of Study which will describe how the degree program requirements will be met. It must contain: (1) a list of courses that the student will take, including the area requirements and elective courses appropriate to the student's background, interests, and intended research field; (2) plans for meeting the competency and seminar requirements; (3) a list of topic areas in which the student will be examined during the comprehensive exam; and (4) a brief description of the student's intended area of research. Although formal coursework will be different for each student, the goal of the program is to provide the student with sufficient knowledge and information to permit independent critical thinking and to prepare for creative research.

Included in the student's degree requirements are also a comprehensive examination over a set of topics defined by each emphasis area (e.g., neurology), a dissertation research plan approved by the student's supervisory committee, and a final dissertation examination. All the traditional assessment mechanisms, therefore, are in place.

The resulting degree, will, we hope, prepare our students to meet the changing demands of the marketplace and society, for it recognizes that modern problems often require skills, knowledge, and problem solving techniques from a multiplicity of disciplines.

Cardinal Newman's idea of a university enjoins that "true university education should provide the power of viewing many things at once as one whole, and referring them severally to their true places in the universal system and understanding their respective values and determining their mutual dependence." It is in this spirit of excellence through integration that these pan-disciplinary degrees have been proposed.

(Attachment: Final Proposal - Interdisciplinary Doctoral Program in Natural Sciences)

References

Branscomb, Lewis, "Science in 2006," American Scientist, 74: 650-658, Nov.-Dec., 1986).

PROPOSAL FOR AN INTERDISCIPLINARY DOCTORAL PROGRAM IN NATURAL SCIENCE
UNIVERSITY OF MISSOURI - KANSAS CITY

A. Introduction

This is a proposal for an Interdisciplinary Ph.D. Program in Natural Sciences which will be based on cooperative interactions among faculty in the College of Arts and Sciences and the Schools of Basic Life Sciences, Dentistry, and Pharmacy. The plan outlined here describes (1) the philosophy behind this innovative program, (2) the requirements for obtaining the doctoral degree in natural sciences, and (3) the faculty organizational structure for administering the degree program.

Graduates of the program will be broadly trained in the natural sciences, with a specialization in one of several interdisciplinary emphasis areas. They will be prepared for a variety of careers in academia, industry, and government. The plan is a logical outcome of the recent re-organization of the sciences on this campus, and it will meet the needs of the campus, our future students, and the state of Missouri for training scientists in chemical and biological sciences.

B. Program Philosophy

The concept of this program results from the recognition that classical approaches to graduate education in the sciences are no longer entirely appropriate as we approach the twenty-first century. In fact, our systems of doctoral training are rooted in the European traditions of the nineteenth century, a very different era in the history of science and society. Many urgent problems require application of skills, knowledge, and problem solving techniques from several traditional disciplines. Modern approaches to scientific problem solving require scientists with a wide variety of technical skills and an ability to communicate effectively with colleagues outside of their own area of expertise. Although the traditional goal of training doctoral candidates to become scholars and researchers is still valid, it must be pursued in a new way. An interdisciplinary approach to doctoral training--one which promotes development of an individual's ability to perform independent research and to generate original scholarly knowledge in his/her chosen field, combined with exposure to information, approaches to problem solving, and critical thinking in several fields--should be our paradigm.

We have attempted to devise a program which will meet all of these goals. It introduces several novel interdisciplinary elements and combines them with the requirement for documented superior accomplishments in research and scholarship. The program will establish several non-traditional emphasis areas as the focal points for developing students' research projects and programs of study.
Both formal coursework and individual study will emphasize current scientific thinking and methods, critical analysis, and research. The interdisciplinary approach allows for flexibility in relation to individual students' needs and interests. In addition, interactions

between active research faculty in different schools will be promoted, providing additional opportunities for students and strengthening the research effort of the campus. We have also incorporated a series of evaluative steps throughout the program to assess student progress in intellectual growth and development and to ensure program quality.

We have attempted whenever possible to build on extant strengths and structures as a means of conserving resources and preventing duplication of effort. Also recognizing the need for flexibility and the inevitability of change, we have devised a plan which allows for future growth and development without major re-organization. The Interdisciplinary Ph.D. in Natural Sciences will complement other graduate programs that are being planned as well as those currently available.

C. Program Organization and Administration

The Doctoral Faculty:

The Doctoral Faculty of the Interdisciplinary Ph.D. Program in Natural Sciences in concert with the chief graduate officer will be responsible for planning, directing, administering, and monitoring the program. The Doctoral Faculty consists of that group of faculty from the College of Arts and Sciences and the Schools of Basic Life Sciences, Dentistry, and Pharmacy who have been certified by the University according to guidelines established for this program as being qualified to chair doctoral dissertation committees. The Doctoral Faculty will conduct its functions primarily through committees which will act for the faculty in various matters. These committees will include: the Coordinating Committee, the School and Department Graduate Committees, the Emphasis Area Faculty Groups, and individual Supervisory Committees. Other committees may be established on a permanent or ad hoc basis as required. The chief graduate officer of the campus will appoint a chair selected from the membership of the Coordinating Committee to chair doctoral faculty meetings and will be an ex officio member of its committees.

The Coordinating Committee:

The Coordinating Committee is the campus-level group which will serve as the planning and policy making body for the Interdisciplinary Ph.D. program. It will establish procedures, policies, and requirements for the doctoral program; monitor program development and quality; and recommend changes in established guidelines as are deemed necessary. Recommendations of the Coordinating Committee must be discussed and approved by the Doctoral Faculty. The Coordinating Committee will consist of the Graduate Officers from the four participating units plus one elected member of the Doctoral Faculty from each unit.

School and Department Graduate Committees:

The School and Department Graduate Committees will conduct the routine supervisory, monitoring, and record keeping functions of the program as established by the Coordinating Committee. Specifically, these groups will admit students to the program, review doctoral students' programs of study, monitor student progress and performance, maintain the documentation required for certification of degree requirement completion, and perform other functions required for operation of the program at the unit level. These groups will ensure conformity with program-wide standards and requirements as well as emphasis area requirements. The School and Department Graduate Committees will be established as desired by each unit.

Emphasis Area Faculty Groups:

Emphasis areas will be identified within the College of Arts and Sciences and the Schools of Basic Life Sciences, Dentistry, and Pharmacy. Each program emphasis area will have an associated group of Doctoral Faculty. Membership in a group will be voluntary and based on the desire and ability of the faculty member to train students in that area. Emphasis Area Faculty Groups must include faculty from more than one division or unit, and they will be the primary basis for the interdisciplinary nature of this program. The members of an Emphasis Area Faculty Group will be responsible for establishing the area course requirements and for conducting the comprehensive examination in that area under guidelines established for comprehensive examinations. The Coordinating Committee will devise procedures and policies for establishing and conducting the activities of these groups. One of the strengths of this organizational pattern is the flexibility that it will provide to the doctoral student.

Supervisory Committees:

A Supervisory Committee will be established for each doctoral candidate once a research advisor has been determined. The committee must consist of at least five faculty members, including the student's advisor who must be a member of the Doctoral Faculty. All members of the committee must be members of the graduate faculty, and at least one must be from an emphasis area other than that of the advisor. The Supervisory Committee will review and approve the student's Program of Study, review and approve the student's Dissertation Research Plan, monitor the student's continued progress, and, finally, evaluate and approve the student's research and dissertation. Supervisory Committees will be appointed by the units.

D. Program Requirements

Admission:

Students will be admitted to the program by the Graduate Committees of the units, in relation to their apparent interests. Minimum admission standards and policies will be decided by the Coordinating Committee and details related to the admission process will be carried out by each participating department, division, or school. These standards must be in compliance with University-wide regulations.

Coursework, laboratory rotations, and competencies:

Following admission a student will be supervised by the Graduate Committee in his/her unit until an advisor has been selected. To begin their studies, students will typically enroll in interdisciplinary courses and emphasis area courses. During the first year, they will also perform laboratory research rotations, appropriate to their and the faculty's interests, as a means of being introduced to research and as an aid in the selection of a research advisor. Although students will take different courses, and rotate through different research laboratories of qualified faculty in their chosen emphasis areas, the following requirements must be satisfied:

1. The student must have interviews with at least six potential faculty research advisors of his or her choosing in at least three different emphasis areas.

2. The student must spend a period of time in at least two Doctoral Faculty members' laboratories, performing lab work, learning about the research interests of the faculty, and being exposed to different methodologies and approaches; rotations will be chosen on the basis of information provided about the current research activities of the faculty in consultation with the unit Graduate Committee. To promote development of interdisciplinary skills, one rotation must be outside of the student's emphasis area. Students will select research advisors based on their interviews, rotation experiences, coursework, and research interests, subject to approval by the faculty member and the unit.

3. Either through formal courses or by individual study, students must develop basic competencies in either statistics or computer applications appropriate to their area of interest.

4. Students must take the required courses for their emphasis area or be exempt on a basis of previous experience; students may be required to take courses to remediate deficiencies in their backgrounds.

5. Students are required during their studies to participate in interdisciplinary seminars and literature discussion groups where faculty, students, and outside speakers will present current research. Students are expected to attend such presentations, and they will develop the skills required to present their own work or discuss the work of others, according to guidelines established by the Coordinating Committee.

6. During the first year students must take a one semester interdisciplinary seminar course that will consider the history and philosophy of science. Familiarity with great discoveries and ideas in several disciplines will acquaint students with the historical, philosophical, and cultural background that influences scientific inquiry.

7. Students must complete two semesters of residency.

8. Campus and University guidelines for graduate studies must also be satisfied.

Program of Study:

Upon recommendation by the faculty advisor and the unit's Graduate Committee, the Dean will appoint a Supervisory Committee for each student. The student, advisor, and committee will devise a mutually satisfactory Program of Study which will be a description of how the degree program requirements will be met. It will contain: (1) a list of courses that the student will take, including the area requirements and elective courses appropriate to the student's background, interests, and intended research field; (2) plans for meeting the competency and seminar requirements; (3) a list of topic areas in which the student will be examined during the comprehensive exam; and (4) a brief description of the student's intended area of research. Although formal coursework will be different for each student, the goal of the program will be to provide the student with sufficient knowledge and information to permit independent critical thinking and to prepare for creative research.

Comprehensive Exam:

Each Emphasis Area Faculty Group will define a set of broad topics which will be the subject of questions on the comprehensive exam for that area. A student, in conjunction with his/her research advisor and Supervisory Committee, will select a subset of topics for his/her examination, including some topics from other emphasis areas. The comprehensive exam will include questions in each of the selected topics. An oral examination, covering topics in the student's area of interest, may also be required. A student must satisfactorily complete the comprehensive examination to become a degree candidate.

Dissertation Research Plan:

Students will begin research after selecting their research advisors, and they may be working in the laboratory before their coursework and exams have been completed. After passing his/her comprehensive exam, the student will concentrate on defining his/her doctoral research project. The candidate will prepare a written research proposal which includes a detailed description of the aims of the research, the relevant background in the field, an experimental plan, and the significance of the proposed work. This will be evaluated by the student's Supervisory Committee with respect to definition of the project, knowledge about the topic, suitability of goals and approaches for the research, and feasibility. Although it is intended that the Research Plan be a description of the student's dissertation work, it is obvious that changes in the plan may be necessary as the work progresses.

Final Dissertation Examination:

When the student has successfully completed the research project, (in the opinion of the research advisor), she/he will write a dissertation describing the research which has been performed. The Supervisory Committee will then conduct the final dissertation examination. The student will, in addition to writing the dissertation, present an oral defense of his/her research. If the research work and the written and oral presentations are deemed satisfactory, the requirements for the doctoral degree will have been completed.

BACHELOR DEGREES FOR SOLDIERS (BDFS) SYSTEM

Clinton L. Anderson

Introduction

The staff of Servicemembers Opportunity Colleges (SOC) coordinates degree programs provided for Army and Navy personnel by cooperating networks of civilian colleges and military installations. The SOC staff, composed of adult educators, curriculum technicians and education consultants, are all individuals from the civilian sector who have the responsibility of analyzing programs and their curricula, developing networks and working closely with member colleges and universities. The curricula are offered to servicemembers in their off-duty hours, on United States military installations throughout the world, on board Navy vessels, or on easily accessible campus sites. Currently, the Associate Degree Program consists of 19 separate networks with 82 participating colleges and universities. This program is known in the U.S. Army as SOCAD (Servicemembers Opportunity Colleges Associate Degree) and in the U.S. Navy as SOCNAV (Servicemembers Opportunity Colleges Associate Degree Navy). Both efforts have become integral to the Army and Navy voluntary education systems. Thousands of servicemembers are enrolling at "home colleges" using student agreements (including official evaluations and degree plans) being issued by those "home colleges" after no more than six semester hours of residency work are completed. In October 1986, the SOCAD-SOCNAV concept was extended to the four-year level through a-series of networks of colleges and universities authorized to grant bachelor degrees. This new system is being initiated in cooperation with the Army with the possibility that it will be implemented by the Navy in the future. Even though the BDFS (Bachelor Degrees For Soldiers) system is the principal thrust of this paper, perhaps some additional background information concerning SOC would be helpful for those readers unfamiliar with the SOC organization and its functions.

Much of this paper is an adaptation of written material obtained from Servicemembers Opportunity Colleges and used by written permission of Dr. Arden Pratt, SOC's Director. These materials are included in the reference listing.

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Servicemembers Opportunity Colleges (SOC)

SOC began in the early 1970s as a project of the American higher education community to expand and improve postsecondary educational opportunities for military personnel and veterans. Members of the military services have had a long history of striving for educational achievements. Tuition assistance and the educational benefits provisions of the Vietnam Era G-I Bill enouraged servicemembers to participate in college both while in-service and after leaving active duty. Yet, in reality, servicemembers were often faced with seemingly insurmountable hurdles that prevented many from pursuing a college education. Of those able to participate, many servicemembers simply took courses that happened to be available. Little thought or guidance was given to program planning that would result in meaningful degrees recognized both by military and civilian employers.

Common obstacles encountered by servicemembers included extraordinarily high mobility of military life, difficulty in commuting to classes on college campuses, rigidity of institutional residency requirements, wide variations among colleges' policies on acceptance of academic credit for degree programs, and failure of colleges to recognize learning and award credit for specialized military training and work experience that was clearly relevant to a particular degree program. SOC was created to help servicemembers overcome these geographic and institutional hurdles and to help the Department of Defense and the military services meet the voluntary higher education needs and aspirations of military students.

The SOC consortium was organized and is still sponsored by the American Association of State Colleges and Universities (AASCU) and the American Association of Community and Junior Colleges (AACJC). Cooperating agencies include ten other major national education organizations, and the Office of the Assistant Secretary of Defense and the military services, including the U.S. Marine Corps and the U.S. Coast Guard. The SOC office is located in Suite 750, The National Center For Higher Education, One Dupont Circle, N.W., Washington, DC. More than 400 educational institutions are institutional members of SOC. These institutions have voluntarily agreed to comply with the "SOC Principles and Criteria" which were developed to overcome the common obstacles outlined above while maintaining educational quality. Collectively, SOC institutions offer a full range of associate and baccalaureate degree programs. SOC institutions often act as "home colleges" for servicemembers who, by prior agreement, earn academic credits elsewhere.

During the mid-1970s, the U.S. Air Force established the Community College of the Air Force (CCAF) to offer a more complete and effective Associate Degree Program which directly related to the military training needs of the Air Force. The Army and Navy rejected both the idea of establishing in-service associate degree-awarding colleges patterned after CCAF and the proposal to establish a Community College of the Armed Forces. Instead, the Army and the Navy requested that SOC coordinate their Associate Degree Programs with civilian educational institutions, hence SOCAD and SOCNAV.

Features of BDFS System

Specifically, BDFS is "a system of voluntary, off-duty bachelor degree programs designed for Army NCOs (Noncommissioned Officers) and Warrant Officers." (BDFS Handbook, Feb. 1987, p1-1.) Bachelor degree programs within the BDFS system are designed to relate directly to the military occupational specialty (MOS) of soldiers. Therefore, they apply to military job performance while the student is in service and will be recognized in the job market when the soldier becomes a veteran within the civilian sector. BDFS programs are offered by regionally accredited colleges and universities which have mutually agreed to comply, first, with the "SOC Principles and Criteria", and, second, with the specific features of the BDFS system as outlined below.

First, a BDFS institution limits required academic residency to 25 percent or less of the total degree program. Course work that constitutes this academic residency can be completed at any time within the program of study. BDFS institutions particularly avoid any "final year" or "final semester" residency requirement, subject to stated requirements in specific course areas such as majors.

Second, a BDFS Student Agreement is issued by the BDFS "home college" after no more than six semester hours or the equivalent in course work have been completed with that institution. BDFS Student Agreement includes an official evaluation and a degree plan.

Third, a BDFS institution awards credit, where applicable within the degree plan, for non-traditional learning, for MOS experience, military training courses and results of national examinations based on recommendations of the American Council on Education (ACE).

Fourth, a BDFS institution agrees to guaranteed transferability of credit among colleges and universities that are members of the BDFS networks, with no individual prior approval necessary. All BDFS credit transfer guarantees are specifically listed in the BDFS Handbook which is updated every six months. Section 6, BDFS Handbook details the guaranteed transfer elements of the BDFS system for both Major and Related courses and for General Education. Guaranteed transferability of credit is available only for those students who have been issued a BDFS Student Agreement.

Fifth, a BDFS institution agrees that the BDFS student agreement remains in force and the degree can be completed even after the student-soldier has left active military service.

Sixth, a BDFS institution guarantees tranfer of credits earned for a SOCAD degree to a related degree curriculum in the BDFS system. A BDFS student can earn at least 45 percent of the bachelor degree requirements by having completed a related SOCAD degree. The last part of Section 6, BDFS Handbook outlines the guarantees that are in effect for transfer of SOCAD associate degrees to related BDFS programs. It must be emphasized that this guarantee is available only for those BDFS students who have completed associate degrees through the SOCAD system. Not all associate degree curriculums offered on Army installations or made available on nearby college campuses or at off-post college resident centers are part of SOCAD. Neither are all bachelor degree curriculums available on or off military installations a part of the BDFS system. Only those curriculums listed in the SOCAD and BDFS Handbooks are part of the systems, and SOCAD and BDFS institutional membership applies only to those colleges whose curriculums are listed in the Handbooks.

Seventh, a BDFS institution will schedule courses in appropriate sequence, to facilitate soldiers completing their degree programs.

And eighth, each BDFS college or university has agreed to identify its approved programs as part of BDFS networks and to publicize this membership widely to those eligible to enroll, which in most cases includes both soldiers and their adult family members.

BDFS Curriculum Networks

A network in the BDFS system consists of a number of curriculums in a single program area offered by member colleges and universities. Currently there are eight BDFS networks with over 840 network units (one college offering one curriculum at one approved installation) operating around the world. The eight networks are shown in figure 1.

Figure 1

Operational Networks in BDFS System

Accounting Network

Computer Studies-Related Networks:
- **Computer Studies Netork**
- **Information Systems Management Network**

Management- Related Networks
- **General Business (Management) Network**
- **Human Resources Management Network**
- **Management Network**
- **Operations Management Network**
- **Public Administration Network**

The actual titles and the degree designations used by the member colleges and universities for curriculums included within a BDFS network vary widely. In some cases the connection between the actual degree title and the BDFS network in which it operates may not be obvious to the casual reader. Descriptive information and curriculum data sheets provided in the BDFS Handbook appear to clarify these relationships.

Even though the military services nominate colleges and universities for consideration to become BDFS system members, it is the SOC staff, composed strictly of civilians, that established and maintains the BDFS system. These individuals are not part of the military services. It is the SOC staff that requests program information from nominated institutions, analyzes program curricula, establishes and maintains networks, extends offers to institutions to become members, receives and reviews SOC Student Agreements, develops and maintains the BDFS Handbook and performs numerous other BDFS system development and implementation functions.

BDFS Information and Assistance

Each BDFS college or university has designated a BDFS representative at the local campus. This person is generally quite knowledgeable concerning the BDFS curriculums offered by that institution and the specific department or school personnel in charge of them. Some institutions serving overseas locations have designated additional contact persons at those locations. The names of these contact persons are specified in the BDFS Handbook.

Assistance is also generally available from Army education center staff personnel (Education Services Officers, Education Services Specialists, and Education Counselors) who serve in over 630 Army education centers and sub-centers at Army posts, camps, stations, and communities wherever U.S. Army active duty soldiers are concentrated. If problems arise that cannot be resolved with the local Army education center staff or the BDFS college or university representatives, Army personnel are directed to seek a solution from their Major Army Command Education Officer. He or she, in turn, may seek guidance from Headquarters, Department of the Army (HQDA). BDFS institutional representatives and /or BDFS students may contact the SOC Office in Washington, DC, for help by calling toll free 800-368-5622.

Each year SOC and HQDA conduct several BDFS/SOCAD training workshops where Army and institutional representatives come together for formal training regarding the BDFS and SOCAD systems. Workshops occur regionally within the continental United States and at various locations overseas. Generally workshop attendance is beyond capacity. Training workshops appear to be key in successful system implementation. The functions of this training are included in figure 2.

Figure 2

Functions of the BDFS Training Workshops

Help all attendees:

1. Recognize the needs for the BDFS system.

2. Develop knowledge of the BDFS system to include:
   - -Understanding the organization of the BDFS system;
   - -Understanding the college/university role;
   - -Understanding local Army Education Staff role;
   - -Identification of BDFS students;
   - -Understanding BDFS Student Agreement Form.

3. Develop a working knowledge of the BDFS system materials to include being able to locate and interpret all sections of the BDFS Handbook and to be able to use BDFS forms.

4. Develop effective counseling and advising skills needed to assist BDFS students.

5. Be able to market the BDFS system with local Army education staff, college/university faculty and staff, and with soldiers and their adult family members where appropriate.

BDFS Institutional Membership

Educational institutions are nominated for BDFS institutional membership by local U.S. Army Education Services Officers. These nominations are passed through normal Army staff channels to the Education Division, Office of the Deputy Chief of Staff for Personnel, HQDA. SOC receives these nominations from HQDA. The SOC BDFS Program Associate obtains the necessary program information from the nominated institutions and develops the essential data for institutional networking as it would appear in the BDFS Handbook. Curriculum materials and course descriptions are sent to all current BDFS institutional members within the affected network or networks. Each current network institutional member has an opportunity to review in detail materials from prospective members including proposed BDFS Transfer Guarantees. Questions, concerns, and any institutional objections must be resolved before a final offer for BDFS institutional membership can be made by SOC to a nominated college or university. Once that offer is accepted, then the nominated institution must agree to become a BDFS institutional member and comply with all the stipulations and responsibilities inherent in BDFS membership. Current institutional membership is shown in figure 3.

Figure-3

BDFS Institutional Members (February 1987)

American Technological University
Athens State College
Brenau College
Cameron University
Campbell University
Chaminade University of Honolulu
Chapman College
Coker College
Colorado Technical College
Columbia College
Fayetteville State University
Golden Gate University
Hawaii Pacific College
Incarnate Word College
Methodist College
Metropolitan State University (MN)
Mount Senario College
National College
Northwestern State University of Louisiana
Our Lady of the Lake University
Paine College
Park College
Regis College
Saint Leo College
Southwest Texas State University
State University of New York College at Oswego
State University of New York College at Potsdam
State University of New York College of Technology
Troy State University
Troy State University at Dothan
University of Maryland University College
Wayland Baptist University
Western New England College

Other colleges and universities have been nominated and are in various stages of membership processing.

Future of BDFS System

BDFS system development is a dynamic process undergoing expansion and refinement. New networks are in the process of being developed for future implementation (see figure 4). Other networks will be developed and instituted as requested by HQDA or the other military services.

Figure 4

Planned BDFS Networks Under Development

- Applied Science and Technology
- Aviation Management
- Aviation Technology
- Construction Technology
- Corrections
- Criminal Justice
- Electronic Technology
- Health Services Management
- Health Services Technology
- Medical Records Management
- Office Management
- Police Science
- Technical Management

In the future, HQDA will consider bachelor degree programs delivered by alternative delivery systems for inclusion within BDFS networks . For the most part, the current college and university institutional members offer programs with courses presented in teacher-center, traditional classroom environments, albeit often on a military installation. SOC is in the process of identifying bachelor degree programs offered by a number of alternative delivery means and methods (for example, independent guided study, correspondence, teleconferencing, PLATO, personal computer, television, video and/or audio cassette, etc.). Upon completion of this identification process, HQDA will be advised on the availability of these types of programs. Based on this information, HQDA and SOC may consider incorporating selected programs into existing BDFS networks. Such an effort would concentrate on providing soldiers with additional educational opportunities aimed at developing and sustaining the self-directed adult learner.

Conclusions

The BDFS system is a long planned, but only recently developed and implemented educational system. It offers soldiers a continuum for educational development from the associate to bachelor degree program levels. Potential for BDFS system growth includes its extension to all the military services and expansion into numerous additional curriculum networks and many instructional delivery systems. BDFS embodies the "SOC Principles and Criteria" aimed at reducing the hurdles often experienced in the past by servicemembers in achieving higher education objectives. But perhaps the key consideration is that the BDFS system strongly encourages servicemembers to engage in bachelor degree programs that are relevant to their military job performance, yet, at the same time, are fully recognized and applicable within the civilian workplace.

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AN EXTENDED DEGREE PROGRAM FOR THE PENNSYLVANIA ARMY NATIONAL GUARD OFFERED BY THE PENNSYLVANIA STATE UNIVERSITY

Brian King, Park Lenhart, William Loop, and Joseph Perrino

In the Fall of 1986, the College of the Liberal Arts submitted a proposal to the Penn State University Faculty Senate to establish an Extended Degree Program for members of the Pennsylvania Army National Guard (PAANG). This proposal was derived from a series of meetings between Guard officers and representatives of the College of the Liberal Arts, the University's Commonwealth Educational System, and selected University branch campuses in southwestern Pennsylvania. These meetings were held to develop the University's response to recent educational requirements/goals mandated by the National Guard Bureau for officers, warrant officers, and senior noncommissioned officers of the Army National Guard units in all states. The educational requirements/goals are summarized below:

1. All Army National Guard commissioned officers must have completed at least two years of college or its equivalent (60 semester hours) by 1 October 1989.

2. All commissioned officers initially appointed after 30 September 1983 must have a baccalaureate degree before promotion to the rank of major.

3. Warrant officers should work towards the goal of an associate degree in a military speciality or in management before the fifteenth year of service.

4. Senior noncommissioned officers should work towards the goal of an associate degree or completion of two years of college before their fifteenth year of service.

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The University developed an extended degree program consisting of a three-tiered progression for the Guard. At the first tier (21 credits), the student will have fulfilled the requirements for a certificate in business management. Upon completion of the second tier (60 credits), the student will have fulfilled the requirements for the Associate Degree in Letters, Arts, and Sciences. At the third tier (124 credits), the student will have fulfilled the requirements for the Bachelor of Arts Degree in General Arts and Sciences. The Model Curricular Plan for this academic program is contained in Attachment I.

The means for delivering this academic program are outlined in the Model Administrative Plan, Attachment II.

The Extended Degree Program for the PAANG was approved by the University Senate and is being implemented in the Spring Semester, 1987. Five of the University's Commonwealth Campuses are offering courses to 117 guardsmen at eight armories in southwestern Pennsylvania.

This program has several unique features:

1. The program is available only to members of the Pennsylvania Army National Guard.
2. Instruction is provided by Penn State faculty at the local National Guard Armory.
3. The pilot program is concentrated in southwestern Pennsylvania, but it is expected that the program will be expanded throughout the State utilizing the resources of the University's seventeen Commonwealth Campuses.
4. The program taps into an educational market of some 18,000 members of the Pennsylvania Army National Guard, and hopefully will lead into a secondary market comprised of the reserve components of the Army, Navy, Air Force, and Marines which represents an additional potential market of 50,000 members.
5. Guardsmen participating in this program are eligible for the new GI bill which provides $70 per month for half-time class attendance as well as being eligible for funds from the Army's Continuing Education System which provides 75% tuition assistance for part-time studies through the graduate level.

The Pennsylvania State University is uniquely positioned to bring undergraduate instruction within commuting distance of almost all National Guard Armories in the State, and for that reason, the coupling between Penn State University and the Pennsylvania Army National Guard is a natural undertaking. The University is now reaching students who might not otherwise seek out higher education. For these students, the first college course has been made a little less threatening. The University is tapping into a potential market, 68,000 strong, which has the financial backing of the United States Government. The Pennsylvania Guard has been receptive to our program because we are bringing quality higher education to their personnel on their own territory and they view this program as an attractive enlistment incentive. Other colleges and universities should examine possibilities for-extending educational programs to National Guard and reserve units in their own service areas. The market is there. The financial and professional incentives are there. All the ingredients for a successful program are present for the institution which is willing to invest some hard work in cultivating this lucrative nontraditional clientele.

ATTACHMENT I

MODEL CURRICULAR PLAN
for
ASSOCIATE DEGREE in LETTERS, ARTS, and SCIENCES (2LAS)
and
BACHELOR of ARTS in GENERAL ARTS and SCIENCES (GNAS)

The purpose of this model curricular plan is to demonstrate the kind of baccalaureate degree program that can be designed on a regional basis for members of the Pennsylvania Army National Guard and related services. It is not intended to be a final proposal or to restrict exact course selection. The great advantage of both 2LAS and GNAS is their flexibility. A final plan must be worked out among the various administrative and planning elements of the project and must, of course, address the goals and needs of the participants, the availability of instructors, the location of facilities, and the qualities and kind of instructional resources--all of which have yet to be determined.

Part of the strategy of this model is to provide incentive and rewards as the student progresses toward his or her degree:

Tier 1: Certificate in Business Management (after 21 credits)
Tier 2: Associate Degree in Letters, Arts, and Sciences (after 60 credits)

Plan A: National Affairs

Completion of Requirements of the National Security Affairs Minor (after 78 credits)
Completion of Requirements of the Business Minor (after 94 credits)

Plan B: Management Studies

Completion of Requirements of the Business Minor (after 81 credits)
Completion of Requirements for the Psychology Minor (after 97 credits)

Tier 3: Bachelor of Arts in General Arts and Sciences (after 124 credits)

Notice that two alternative programs allow the student to create an emphasis in either National Affairs or Management Studies, both incorporating a Business Minor. Other emphases might also be arranged.

Plan A is presented for the purposes of illustration.

The order of courses was selected according to the minimum requirements for each level, with the intention of delaying the physical education and the foreign language requirements until only requirements for the B.A. remain.

SEQUENCE OF COURSES FOR PLAN A: NATIONAL AFFAIRS

Spring 1987

MGMT 100: Survey of Management
B LAW 243: Legal Environment of Business

Summer 1987

ENGL 15: Rhetoric and Composition

Fall 1987

ACCTG 101: Introductory Financial Accounting
MGMT 341: Personnel Management

Spring 1988

ECON 2: Introductory Microeconomic Analysis and Policy
PSY 2: Introduction to Psychology

CERTIFICATE IN BUSINESS MANAGEMENT

Summer 1988

SPCOM 100: Effective Speech

Fall 1988

HIST 20: American Civilization to 1877
BI SC 3: Man and His Environment

Spring 1989

HIST 21: American Civilization Since 1877
GEOG 19: Geography of Man's Environment

Summer 1989

ENGL 219: Business Writing

Fall 89

STAT 100: Statistical Concepts and Reasoning
ARTS 1: The Arts

Spring 1990

MATH 35: General View of Mathematics
THEA 100: The Art of the Theater

Summer 1990

PL SC 140: The Military in Politics

Fall 1990

ECON 4: Introductory Macroeconomic Analysis and Policy
PL SC 1: American National Government

ASSOCIATE DEGREE IN LETTERS, ARTS, AND SCIENCES

Spring 1991

ECON 333: International Economics
HIST 454: American Military History

Summer 1991

GEOG 460: Political Geography

Fall 1991

PL SC 438: National Security Policies
PH SC 7: Physical Science

REQUIREMENTS FOR NATIONAL SECURITY AFFAIRS MINOR COMPLETED

Spring 1992

ECON 433: Advanced International Economics
HIST 142: History of Communism

Summer 1992

SPCOM 352: Speech Communications in Organizations
PH ED 5: Physical Education

Fall 1992

PL SC 444: Government and the Economy
FIN 100: Introduction to Finance

REQUIREMENTS FOR BUSINESS MINOR COMPLETED

Spring 1993

HIST 143: History of Facism and Nazism
PHIL 106: Business Ethics

Summer 1993

SP 1: Elementary Spanish
PH ED 5: Physical Education

Fall 1993

SP 2: Elementary Spanish II
BI SC 4: Biology of Man

Spring 1994

SP 3: Intermediate Spanish
MATH 17: Finite Mathematics

Summer 1994

MUSIC 5: Fundamentals of Music Appreciation
PH ED 5: Physical Education

FALL 1994

PL SC 14: International Relations
HL ED 19: Man and Disease

BACHELOR OF ARTS IN GENERAL ARTS AND SCIENCES

ATTACHMENT II

MODEL ADMINISTRATIVE PLAN
for
ASSOCIATE DEGREE in LETTERS, ARTS, AND SCIENCES (2LAS)
and
BACHELOR OF ARTS in GENERAL ARTS and SCIENCES (GNAS)

Purpose and Background

This Model Administrative Plan explains how The Pennsylvania State University will deliver the Associate Degree in Letters, Arts and Sciences and the Bachelor of Arts Degree in General Arts and Sciences to eligible members of the Pennsylvania Army National Guard.

Designed specifically for the Pennsylvania Army National Guard this plan takes advantage of the unique ability of the University to deliver consistently high quality academic programs and support services throughout the State of Pennsylvania. Through its extensive network of upper and lower division campuses, the University will provide faculty and academic support services to offer coursework at times and locations convenient to the membership of the Pennsylvania Army National Guard.

This program is a cooperative effort of the College of the Liberal Arts and the Division of Continuing Education of the Commonwealth Educational System, The Pennsylvania State University.

Initially, the program will be extended through the Beaver, Fayette, McKeesport, New Kensington and Shenango Valley campuses to the twenty-two Pennsylvania Army National Guard units located within these campus service areas.

If the program proves successful in the southwest Region, it's probable that the Pennsylvania Army National Guard will request that the degree be made available to other Guard units throughout the Commonwealth.

General Administration

The coordination of this regionally based program will be the responsibility of the Assistant Director of Continuing Education (ADCE) at the Mosside Professional Development Center in Monroeville, PA. The Assistant Director will also serve as the liaison between the campuses and the appropriate University Park offices, i.e. College of the Liberal Arts and Commonwealth Educational System. Routine decision-making on matters relating to courses, faculty, sites, etc. will continue to reside with the existing campus officials (Director of Academic Affairs, Director of Continuing Eucation, Area Representatives).

Upon determination by the Guard and the University that sufficient program interest exists within the membership in a given locale, a site for the offering of classes will be selected. A Continuing Education administrator will be appointed to work with the guard at each site or class location. General administrative procedures, practices and communications related to the operation of the program will be mutually determined by the University and the appropriate Guard commanders and/or designates in each area selected for classes.

Program Delivery

Guard and University representatives will meet in each locale selected on the basis of the recent survey to determine and approve: 1) a specific site (normally a local armory) in which to hold classes, 2) which course selection will be offered, and 3) an appropriate course schedule.

The College of the Liberal Arts and other academic units of the University will assign approved faculty members as needed. In making these assignments, these academic units will consider the compatibility of assignments and travel requirements among other criteria. To ensure academic quality and cost effectiveness, the University must reserve the right to select faculty, approve class sites and establish minimum enrollments on a course-by-course basis.

Counseling and Advising

A University counselor for adult students will be made available at each class site prior to the opening of each set of course offerings. The counselor will provide the following services for participating Guard members:

- Academic Counseling
- Career and Placement Counseling
- Financial Aid Counseling
- Admission Information and Assistance
- Information Concerning Veteran's Educational Benefits

Program and Course Announcements

For each course offering, the Guard will be provided with printed program information which announces the courses to be offered at each location and includes course preregistration forms to be completed by the interested membership.

The Guard will be responsible for the timely distribution of this information to participating members as well as the collection and return of the preregistration information to the designated United administrator.

Additional Support Services

The designated University administrator in each locale will be responsible for coordinating the following additional support services and functions for participating Guard members:

Student Registration
Student Records
Tuition Payment Procedures
Audio Visual Materials
Textbook Acquisition

Library Resources

The focal point for providing library support for this program will reside with the local Commonwealth Campus. Each campus librarian will work with the Director of Continuing Education to determine what, if any, additional resources will be required. Each campus has access to supplemental material from Pattee Library and can readily determine the availability of such material through the Library Information Access System (LIAS). Installation of LIAS at the Mosside Center is also under consideration. Additional resources are available within the Greater Pittsburgh Area at other universities, colleges, and public libraries and through the Pittsburgh Regional Library Center, an agency with which Penn State has a cooperative arrangement.

Finally, it should be noted that most of the lower division courses contained in this proposal are identical to courses that already are being offered at the participating Commonwealth Campuses. Library support for these courses already exists. Where additional materials are required to support upper division courses, the campus librarian has at his/her disposal the considerable resources of Pattee and the pooled resources of the Pittsburgh Region Library Center. The budget contained in this proposal takes into consideration requests for library materials.

PROVIDING THE MISSING LINK: STUDENT RESEARCH EXPERIENCES AND COMMUNITY NEED

Peggy Baldwin

The Center for Health Services at Vanderbilt University establishes and coordinates service-learning programs for students around a variety of community health issues These programs share a common goal of empowering local organizations to further their work in the community One of the Center's programs, Action Research, meets this goal by linking the information needs of grassroots organizations and nonprofit social and health care services with the research activities of students.

The Action Research program was piloted in 1984. Between 1984 and 1987, the program has operated four semesters. Funding has been provided by a variety of small grants. Action Research has involved almost 100 Vanderbilt students campus-wide and 57 community programs from 1984 to 1987.

The Action Research program received university backing in 1987 in the form of a promise for three years of funding from the Vice-Chancellor of Medical Affairs. One of the biggest challenges for the program over the next three years is to find on-going funding through the university or outside sources.

In November, 1986, I was hired as a full-time Service-Learning Research Coordinator and I added a Graduate Assistant Coordinator. New guidelines for the program are now being implemented and the project list is expanding. We are forming an Advisory Council to assist in setting future directions for the program. This Council includes faculty, students and community sponsors who have participated in the Action Research program.

Program Benefits and Guidelines

The Action Research program serves faculty,

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students and community organizations, forming a triad relationship. Therefore, Action Research benefits all of these participants.

The program assists faculty in strengthening the learning opportunities in their courses. Our staff provides the faculty with support services that remove the blocks to placing students in the community for service-learning. These services are the identification of community-based projects, the linkage of students and community sponsors and evaluation and follow-up of the project outcome and student performance.

Students also benefit from the improved learning opportunities available through Action Research. Action Research students apply theory learned in the classroom to problems in the community. These applications in Action Research projects are unique compared to many other service-learning opportunities because students are actually taking responsibility for an information need in the community. Students will gain experience using practical research tools to meet these information needs. Some of the tools students have worked with in the past are needs assessments, surveys and program evaluations.

In addition to learning opportunities, experiences with Action Research help students clarify their values by contributing to the students' appreciation of people from different circumstances and cultures. The students' sense of social responsibility is heightened by the opportunity to work alongside community programs in addressing their concerns.

Community programs have an immediate benefit from the Action Research program, that of receiving information needed in their work with a relatively small investment of staff time. Often a project will meet an immediate need for information, as well as lay the ground work for meeting future information needs. An example of this is a project for Rape and Sexual Abuse Center in which students developed a questionaire and conducted a baseline survey to measure attitudes about acquaintance rape. This questionaire will be used in the future to measure the effectiveness of an education program on acquaintance rape to be provided by the center. The long term benefit to community programs is the opportunity to educate tommorrow's leaders about the issues their program is addressing.

Basic guidelines for the program identify minimum standards and roles for all of the participants. The following guidelines are discussed during the orientation of all participants:

- The student must receive academic credit for their Action Research project. Action Research strengthens the link between learning and community service by identifying a service project in the community that teaches research process and methods.
- Community sponsors must be nonprofit organizations providing a service to the community and/or working toward improved community health. This makes it possible to fill a need in the community while building a sense of social responsibility in students.
- Action Research projects should provide information that will be used by community sponsors to further the goals of the community organization. The Action Research program is designed to teach research as a means to an end rather than the end. When a student accepts a project, he/she is aware they are taking responsibility for an information need that has been identified in the community.
- The community sponsor will make the final decision to involve the student recommended by the Action Research staff in their organization's project. Because the project is outlined by the community sponsor, we feel they have the best understanding of the skills needed by a student to complete the tasks of the project.
- All activities outlined in the Action Research contract and agreed upon by the student, faculty member and community sponsor must be completed in order for the student to receive academic credit. When the student and community sponsor meet, they may agree to reduce or increase the size of a project based on the students time, course requirements and experience. In addition, it is not unusual for the course requirements to consist of only a portion of the project tasks. For example, a student in a crime and delinquency course is placed with Project Return, an agency serving former prisoners and their families, to research and report on several new Correction Department programs. This involves writing and administering a questionaire, interviewing several Corrections administrators, comparing the philosophy and structure of the program with past programs and writing a report on the results. For course credit, however, the student need only understand the programs at Project Return and compare these to several

theories learned in the classroom. Including the completion of the contracted tasks as a credit requirement encourages the student to fulfill their commitment to the community sponsor.

- Students are expected to become familiar with the organization they are working with. In turn, community sponsors are expected to spend time with students familiarizing them with their organization and the issues they are addressing. A benefit of placing students with community organizations is to assist the student in seeing how issues that concern them get translated into action in the community.
- The commmunity sponsor and faculty member are expected to be available to consult with the student and give him/her feedback on their work. Typically, the community sponsor teaches the student about the organization, outlines the tasks of the project with the student and gives the student information on resources to aid in completing the project. The faculty member consults with the student on research method, analysis of the data and the application of theory to the project.

Students and community sponsors are expected to follow the above guidelines as well as guidelines for ethical research. Many schools and departments have standard community research guidelines that they follow. When these guidelines are not established, the guidelines from the American Sociological Association are followed (see Appendix).

Project Development

The Action Research staff formally surveys community programs for their information needs through a mailing three times a year: August, November and March, in anticipation of the following semester. Projects are solicited informally throughout the year as the staff networks with community organizations. These are added to a computerized projects file (see Appendix).

Community organizations interested in participating in the Action Research program fill in a project outline form (see Appendix). This form includes information on the goals and tasks of the project and the anticipated use of the research results. Organizations are encouraged to be as specific as possible when describing activities needed for a project. The more specific the request, the more efficient and effective the match of student and community project. This form establishes a file for the organization and project and is used to target the right student for the project.

Action Research projects vary by type of community organization, subject area, skill required, time commitment and research methods. For the Spring semester, 1987, Action Research listed 48 project needs in 34 community organizations. The following is a breakdown of the Spring semester project list.

Type of Community Organization:
Grassroots Organization-12
Labor Unions-2
University Services-1
Social Service Agency-19

Subject Area:
Health Care-12
Environment-3
Women's Issues-5
Youth-6
Employment-4
Criminal Justice-2
Aging-1
Community Life and Services-12
Education-3

Skill Requirements:
Typically, less than one third of the projects will require a graduate student placement. Some of the factors considered to differentiate graduate from undergraduate projects are the amount of community involvement required, the number of sources for gathering the information, the clarity and maturity of the project design, the amount of supervision available from the community sponsor and requirements for skills or past experience. An example of a graduate project that began during Spring semester, 1987, is the preparation of an OSHA testimony on the effects of wood dust exposure on workers in the United Paperworkers Union and the Furniture Workers Union. We decided this project required a graduate student because the student would be coordinating activities with two community sponsors and a resident from Meharry Medical College. The student would also be writing and administering an extensive survey to over fifty sample locals across the country. The size of this task alone would require the student to commit her services for more than one semester. In addition, the community sponsors could not

provide criteria for evaluating the results at the beginning of the project because these were being developed by the Meharry resident. This is a particularly difficult Action Research project for even a graduate student, however, the skill and amount of supervision available from the community sponsor made it possible to place a student with success.

Time Commitment:
The time spent on projects ranged from one hour per week to fifteen hours per week. The average weekly time commitment for students was five hours per week, for community sponsors, one hour per week. Faculty spend, on the average, one to two hours consulting with an Action Research student.

Research Methods: Rather than encompassing the entire research process, these projects generally require data collection and simple analysis and reporting. Several projects, however,required the use of more than one method of information gathering. The methods employed and the frequency of use are needs assessments (7), community sample survey (6), client surveys for program evaluations (8), grant research (4), secondary source research (16), interviews (9), oral histories (1), computerized database and/or analysis of existing data (5), annotated bibliography (1)

At the end of the semester, each project is evaluated by the student and community sponsor (see Appendix). These evaluations include the student's performance, the project's progress toward completion of the outlined tasks, how well the process met student and community sponsor's goals and the effectiveness of the role of Action Research. The completed evaluations are available to the faculty member to assist in their evaluation of the student. In addition, the evaluations assist the Action Research staff and community sponsors in identifying factors that contribute to successful projects and experiences for students.

Several factors are common among past successful projects, although the absence of these factors have resulted in equally successful, even more challenging projects in some cases. (1) A project with clearly defined, specific activities provides clear direction for the student and requires less supervision by the community sponsor. (2) A community sponsor needs to give thought to the design, in fact, all the steps involved in gathering and analyzing information for their project. The sponsor will need to answer questions such as " What background information will the student need to understand this project? Is this information accessible to the student and, if so, where? Does the student need special skills, such as computer skills, for this project? Can this information be gathered in a reasonable time period-3 to 4 months? How many hours per week are needed to complete this project?" (3) Students who have guidance and incentives for participation from their professor, typically have a more rewarding Action Research experience. (4) Additionally, these incentives for participation will reflect the basic philosophy of Action Research, that is, an attitude of support for community service and for conveying that attitude to students.

A problem may arise when a project requires gathering information in territory unknown to the community sponsor. Once the student begins the project he/she may find that the information is not accessible to the public or is more extensive than originally thought. This project may have to be redesigned during the semester and will often require more consultation by the sponsor and the faculty member.

Faculty and Student Involvement

Faculty from all departments and schools on campus are encouraged to participate in Action Research if a course they are teaching relates to community service in general or a project's substantive content. For example, students from a basic computer science course may get credit for designing a simple database for a local maternal and infant care program while students in a social ethics class may get credit for any of the projects based on the community service focus of Action Research.

Faculty and students are informed of the Action Research program through mailings to faculty teaching applicable courses, contact with faculty known to place students for clinical experience and internships, information tables at registration, information to independent study students through pre-registration and publication of a newsletter and projects list each semester. Faculty interested in participating in the program notify the Action Research staff and, if requested, a time may be scheduled for a staff member to speak to his/her classes.

Students may receive credit for an Action Research project through a course, an independent study or a practicum, internship or clinical rotation. During Spring ~~semester,~~ semester, 1987, 29 students participated in Action Research. The following table represents the students' year in school, the course through which they participated in Action Research and their major:

year	course for AR credit	major
senior	Community Health	Nursing
senior	Intergovernmental Relations	Political Science
sophomore	Sociology: Contemporary Problems	Economics
senior	Community Health Nursing	Nursing
sophomore	Sociology: Contemporary Problems	Economics
first/grad	Intro to Ethics	Divinity
sophomore	Sociology: Contemporary Problems	Math
sophomore	Sociology: Contemporary Problems	Pre-law
sophomore	Sociology: Contemporary Problems	Biology
freshman	Sociology: Contemporary Problems	Engineering
sophomore	Sociology: Contemporary Problems	Economics
junior	Volunteer	English
senior	Independent Study	Nursing
sophomore	Sociology: Contemporary Problems	Biology
sophomore	Sociology: Contemporary problems	English
first/grad	Policy Analysis	Public Policy
freshman	Sociology: Contemporary Problems	Undecided
second/gra	Intro to Ethics	Divinity
sophomore	Sociology: Contemporary Problems	Biology
first/grad	Intro. to Ethics	Divinity
first/grad	Policy Analysis	Public Policy
junior	Sociology: Contemporary Problems	Math
first/grad	Intro. to Ethics	Divinity
sophomore	Sociology: Contemporary Problems	Psychology
first/grad	Intro. to Ethics	Divinity
senior	Family, Career and Gender	Human Dev.
sophomore	Intergovernmental Relations	Political Science
senior	Crime and Delinquency	Political Science
first/grad	Policy Analysis	Public Policy

Students interested in completing a project contact the Action Research staff. The student meets with a staff member and receives an individual orientation to the Action Research program. This orientation includes a discussion of the goals and guidelines of the program, a discussion of the project they have chosen, the time line for the semester, their responsibilities for reporting and the contract. (see Appendix)

The contract is the tool for outlining the activities necessary to complete the project and receive course credit. The students next step after meeting with the Action Research staff is to meet with his/her community sponsor. The student and community sponsor fill in the contract mutually agreeing on points such as the objectives of the student and community sponsor, the specific activities of the project and the amount of time needed each week to complete the project. The student then meets with his/her professor to discuss the requirements for course credit. The contract is returned to the Action Research staff for review and then copies are distributed to student, faculty and community sponsor.

Requirements for academic credit naturally vary from course to course as dictated by course objectives. Sometimes the project that is needed and defined by a community organization becomes only a part of the student's final product for course credit. The level of sophistication expected by the course and faculty will influence the realities of student involvement in Action Research. For example, for a graduate student of human resources, carrying through a program evaluation from start to finish might be appropriate as part of a graduate project or even become a thesis. Whereas for the undergraduate whose objective is only to become exposed to the research process, her/his involvement in only a part of the process may be appropriate. In many cases, undergraduates working in teams or small groups on one project have been successful. Examples of requirements at this level are (1) to complete the project activities and turn in a report of your experience with the process of research, (2) to complete the project and turn in a copy of the results as turned in to the agency, (3) to complete the project and then write a paper discussing one aspect of the issue, such as implications derived from the results. An example would be the ethical considerations of increasing federal WIC funding. Or another example would be the question of what further community services are needed to better serve a population of homeless children and adolescents.

The role of the faculty member is similar to supervision of any student research. She/he should be generally familiar with the nature of the projects listed by Action Research. The faculty member will then be instrumental in interpreting to the students which projects are appropriate and manageable given the objectives and constraints of a particular course. During the planning phase of the project, the faculty member may let the student be entirely responsible for the development of the contract with the agency while maintaining final approval before the project is begun. However, with beginning students, he/she may take a more active role in assisting the student to select a project and negotiate the contract with the community sponsor. As in any case, the faculty should be readily available for consultation or assistance in problem solving throughout the process and will need to devise her/his own methods for monitoring progress and evaluating the final product.

The role of the Action Research staff during the actual work of the project is that of consultant to all participants: student, community sponsor and faculty. The community sponsor and faculty sponsor are the primary supervisors of the student's work. However, should a problem arise, the Action Research staff will step in to assist in a solution. In the past, problems have been as small as being sure the student and community sponsor have correct phone numbers to reach one another or as large as a community organization laying off their entire staff, leaving the student with no sponsor to work with as of mid-semester.

Reflections and Future Plans

The Action Research program is constantly looking for a means to improve the students' community service experience. Beginning this Fall semester, Action Research students will be required to attend three seminars as a part of participating in the program. These seminars will involve students in discussions of the use, purpose and place of research in community service and community empowerment. The seminars will be led by the Center for Health Services staff, guest lecturers and faculty.

A valuable concept of community research is readily taught through Action Research projects. Since the primary motives for organization requests for projects are "program oriented," practical applications of the results are inherent in the projects. Thus the opportunity for even the beginning student of research to learn appreciation for research as a means to an end, rather than an end in itself, is excellent.

In this era of cutbacks in almost every area of funding for community health and social resources, the need to foster a sense of social responsibility and community service in students is more important and maybe more difficult than ever before.

DO YOU KNOW WHAT YOUR COMPETITION IS DOING?

Raymond W. Campbell

Introduction

According to Larry Litten (1980),

> Higher education has long been engaged in the development of services, and the promotional activities which are called "marketing." We have promoted our institutions' services and interests through our public relations, student recruiting, fund-raising, and lobbying efforts; we have changed and developed our institutions to make them more attractive to a variety of publics (p. 41).

The difference today is primarily one of recognition or awareness by colleges and universities that without a harmonized marketing effort they may fail to attain their goals. On many campuses across the country, the marketing function has been institutionalized under a single office or individual with the responsibility for coordination of all marketing-related activities. In short, marketing has evolved from being very implicit to being very explicit.

The decline of federal financial student grants, unstable public confidence in higher education, and the decline in the 18-24-year-old cohort are just a few of the factors that have contributed to the strong interest shown by colleges and universities in adult recruitment and marketing. As part of their attempts to recruit adult learners, a substantial number of colleges and universities in the Philadelphia metropolitan area have established evening degree programs. As competition for the adult learner has intensified, these institutions have undoubtedly increased their promotional activities in order to maintain their share of this market. The full spectrum of marketing-related activities includes numerous activities (e.g., advertisements in newspapers and on radios) that occur before the student-inquiry phase of the process. However, this study focused entirely on the post-inquiry phase of institutional marketing efforts.

Purpose and Methodology

The purpose of this study was to learn what the colleges in this very competitive Philadelphia marketplace were doing in the post-inquiry phase of their marketing efforts to attract adult students. This information was then to be communicated to other

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college officials (via this paper) as a basis for informing their judgments about the post-inquiry marketing phases at their own institutions. For purposes of this study, the post-inquiry phase was defined as an institution's response to a prospective student's inquiry for information.

An anonymous student inquiry was mailed to 36 colleges in the Philadelphia metropolitan area (including southern New Jersey). Thirteen of the institutions were public; 23 of the colleges were private. Community and junior colleges accounted for 10 of the 36 institutions, while comprehensive universities and private, liberal arts collegs numbered 11 and 14, respectively. Of the 11 universities, seven were private and four were public.

The female student sending the inquiry was 26 years of age and employed as an administrative assistant to a vice president of a large corporation. Her interest in pursuing an evening degree at a local college was prompted by her supervisor and her company's very generous tuition benefit package.

Profile of Responses

Of the 36 colleges, 33 responded in some fashion. Three of the private liberal arts colleges did not respond at all--which may possibly mean these institutions never received the initial inquiry. (All three non-responding institutions offer evening programs for adults.) In addition, two of the responding private, liberal arts colleges indicated that their regular daytime offerings were open to adult students, but that they did not offer any evening programs. One liberal arts college responded that it did not offer evening courses, and made no mention of the possibility of adults taking daytime courses--a missed marketing opportunity for this particular college if such an option existed. For whatever reason, perhaps their institutional missions, these three institutions have resisted offering evening courses to the growing adult segment of the country's population.

In the first mailing, the fastest response time, two days, was registered by four institutions, two private ones and two public ones (actually branch campuses of the same university). The institution with the longest response time of 42 days was a public university. The slowness of this institution's response may have been affected by a rather long and unpleasant faculty strike that occurred during the time of this study.

Fifty-two percent of the colleges responded with a catalog in their first mailing. One institution sent a graduate catalog--even though the letter of inquiry requested an undergraduate catalog. The United Parcel Service (UPS) delivered the catalog of one institution, while the rest were all delivered by the U.S. Postal Service. The institution using UPS to deliver its catalogs must have discovered some benefit to this service over the U.S. Mail. In another case, an institution's catalog arrived in a plain brown envelope--no return address or institutional logo--its possible contents unbeknownst to the student until the envelope was opened. In yet another case, a director of continuing education took time to mark and highlight selected catalog pages of perceived relevance to the prospective student.

A viewbook or a prospectus was included by 27%, or 9, of the colleges. Eight colleges, or 24%, enclosed an individually-typed letter in their first mailing. A general form letter was sent by six other institutions. Needless to say, the general form letter was not nearly as attention-grabbing as the personalized letter. Nineteen colleges, or 58%, sent material without a letter of any kind.

In addition to the first mailing, 24% of the colleges sent a second mailing with an average response time of 42 days. (As a point of information, there were no additional letters of inquiry submitted to the institutions included in the study.) In most of these cases the second mailing was the respective college's catalog, which means that the second mailing was not necessarily devised to reinforce the institution's image in the eyes of the prospective student, but more a product of the Postal Service's classified mailing system. In other words, these institutions responded with some materials via first class mail, and sent their catalogs through third-class mail. Three of the colleges sent a third mailing. In two instances, these were the next term's schedules, and in the third an invitation to an open house and news about scholarship money for transfer students. In this last case, not only was the news about scholarship money for transfer students inappropriate for this first-time student, but the name and address on the letter were incorrect--which may explain the inappropriate enclosure. (The name and address on the envelope were correct.) In all three cases, it was apparent that the name of the student had been placed on the three colleges' mailing lists.

Sixty-seven percent, or 22, colleges sent an application for admission in their first mailing. One institution enclosed a note with its materials that said: "Upon receipt of a completed application, you will eventually receive a schedule of course offerings and registration materials." For an institution interested in serving adults and reducing barriers to their enrollment, this notice may have unintended consequences. In a more responsive set of replies, 15 of the responding colleges, or 45%, sent registration forms and a total of 23 (70%) institutions sent schedules. The registration forms, which were included as part of the schedules, varied greatly as a function of the schedule's size in terms of their size and the amount of student information requested.

The "appeals" of these institutions--in many instances more than one--were almost as great as the number of institutions involved in the study. The most common appeals were as follow:

- career-oriented programs (business, computer science and high technology programs)
- ease of registration

- quality and diversity of offerings
- strong and caring faculty
- affordable cost
- successful graduates

Appeals that were not indicated as frequently--and were even somewhat unusual--included the following:

- adult students are our business
- courses taught by regular faculty
- reduced tuition for evening courses
- Christian environment
- Dean's open door policy

In two cases, it was impossible to locate any direct appeals in the literature received. In another case, the only appeal (if it can be considered one) was a picture of a group of adults (their heads only). These last three cases may be indicative of financial woes, the absence of a marketing perspective, or both. As in the case of the rate of response, the appeals in the various publications were far ranging--from non-existent to superfluous.

Implications for Practice

In the Philadelphia area, not unlike other urban areas, the level of competition among colleges for day and evening students is very high. In light of the declining birth rate and the lower number of available 18-24 year-old, traditional students, colleges in this area can expect competition to increase. For colleges interested in continuing to achieve their enrollment goals, especially as they relate to adult students, they will need to direct some of their attention to the post-inquiry phase of their marketing processes.

Generally, college officials will need to:

1. Assess the nature and content of their responses to inquiries from prospective adult students.

2. Continue to learn about barriers to adult participation in postsecondary education and marketing as applied to higher education.

3. Stress the importance of caring and accuracy to the office staff responsible for mailings so that appropriate materials are sent to the right prospective students.

4. Develop small-scale studies like this one for exploring other aspects of the marketing process and their interface with prospective and current students. For example, all institutions should make a concerted effort to learn what current students like and dislike about their academic experiences and extracurricular activities, and what happened to students who inquired about the college but failed to register. The appointment of an ongoing, active task force to conduct these studies helps to connote the importance of a marketing

perspective to the college community while also providing the task force members with an opportunity to reinvest themselves in the institution.

Specifically, college administrators should:

1. Tell prospective students in a personalized letter what is available and why it will benefit them. Letters of this nature should then accompany materials mailed out to students. Standard form letters (e.g., dean-student letters) often do not meet the individualized needs of prospective students.

2. Enclose a personalized letter with a catalog to take advantage of the opportunity to sell the college a second time.

3. Secure the services of someone who understands adult students and who also writes well for materials that will eventually land in the hands of prospective adult students. Some of the publications reviewed in this study either portrayed their institutions as "all things to all people" or included the same appeals as are used for attracting traditional-age students. Regarding the former, the same points that came across to the writer in some institutions' publications as too ideal to believe were presented in others in a much more convincing and much less obtrusive fashion. The old adage that it's not what you say but how you say it is still true. The latter concern, about using traditional student appeals for non-traditional students, is directed at those college publications containing such references as major college athletics and intramural sports under their "benefits" section. These are not always appealing to the 42-year old woman who is the mother of four!

4. Discover the truly unique difference between their college and competing institutions. The publications reviewed in this study listed many of the same "unique differences" that every other institution included.

In this study, colleges with low tuitions and large daytime enrollments appeared to have either a disjointed marketing effort or none at all. Obviously, their need for marketing may not be as strong as some of their competitors. With improved marketing efforts, these colleges could gain a greater share of the adult student market. The possibility that these colleges would take this step is another reason for their competitors to heed the advice in the above points.

Conclusions and Recommendations

As college enrollments continue to stabilize or decline, and the educational needs of urban areas in general, and the Philadelphia area in particular change, it will become increasingly important to assure that promotional activities are appropriate and that programs and services are responsive to the needs of the changing student population. Some of the external trends that are expected to affect the futures of the nation's colleges include a(n): (1) Decline in the number of available traditional-age college students, (2) increase in the diversity of the college population, (3) increase in student careerism and consumerism, (4) increase in the number of available adult learners, and (5) unstable financial support.

The confluence of careerism, consumerism, fewer traditional learners, more nontraditional learners, and unstable financial support will help to direct colleges' attention toward the quality of information given to prospective adult students. The halcyon days of the 60's and early 70's have been replaced by the austere days of the 80's. In this time of relative austerity, institutions will be forced to give greater attention to the needs of adult students if they are to remain competitive. As traditional college enrollments begin to stabilize or decline, talk focuses on such topics as downsizing, retrenchment policies, budget deficits and program reductions. The field of marketing offers a positive alternative, which has the potential for increasing adult student enrollments.

Adoption of the marketing concept does not mean that every institution must go out and hire a vice president for marketing. That may not be a bad idea, but it probably is not feasible for many institutions even to consider. Rather, a more likely alternative is the adoption of a campus-wide marketing perspective--from the president on down--so that the institution moves toward Peter Drucker's (1974, p. 217) marketing ideal: "The aim of marketing is to know and understand the customer so well that ...service fits him and sells itself." However, the effectiveness of this adoption ultimately depends upon someone in the institution taking the responsibility for developing a data base that will help to inform the marketing decisions. With a developing data base and an ongoing, active task force in place, an institution stands a better chance of remaining competitive in the decade ahead.

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KINDERSKILLS: A UNIQUE INTERGENERATIONAL AND INTERDISCIPLINARY PROGRAM OF SKILL INSTRUCTION

Linda M. Carson

The period of life known as early childhood, or roughly the ages between two and six, plays a significant role in determining the quality of life throughout the rest of the lifespan. Several major developmental milestones are achieved during this time. A language is learned. Personalities and self concepts are formed. A repertoire of cognitive concepts is established. Basic motor skills and body management tasks are acquired.

With so many skills and abilities emerging during early childhood, the popularity of pre-school instructional programs has flourished. In the area of motor development there are a number of University-sponsored programs which teach motor skills to pre-school children. Virtually all of them utilize student clinicians as their teachers. While this is a meaningful experience for university students and children alike, parents are often uninvolved and sometimes unaware of the milestones being accomplished by their children.

The School of Physical Education at West Virginia University sponsors KinderSkills, the only program of its kind in the country. It is an intergenerational course of instruction for parents, grandparents, and pre-school children. The adults serve as teachers and models for their children and grandchildren. Specific skills which are emphasized include throwing, kicking, catching, jumping, striking, balance, fitness, rhythms, and spatial awareness. The adults are provided with developmental information, demonstrations, practice checklists, and instructional videotapes. The children (ages 3,4,5) learn basic skills, develop healthy fitness habits, and establish efficient movement patterns.

In addition to being an innovative adult-child educational program, KinderSkills has developed a reputation for unique interdisciplinary opportunities. Specifically, the Schools of Electrical Engineering and Mechanical Engineering use the KinderSkills program in their year-long design courses to provide a challenging and practical environment for project proposals. The engineering students have designed and built sophisticated electronic play equipment, i.e., a total body video game, electronic batting practice with a simulated ball, and an electronically programmed rhythms platform. Others, equally as unique are being designed. There are other academic units on campus which use KinderSkills on a regular basis as an observation laboratory or as a clinical work experience in which they assist parents and grandparents.

Program Rationale

Children in this age group are responsive and receptive to instruction, particularly in the area of motor skills. If this area is left to chance, the child is likely to develop inefficient movement patterns which are difficult to change and even worse, may cause the child to develop a negative self-image. Self concepts develop based on what a child can do...or not do. Children who feel comfortable with their abilities tend to continue participating, thus setting the stage for skill mastery and games playing.

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Not only do children value game skills, so do their parents. Unfortunately, however, some parents set unrealistic expectations for their children by involving them in sports specific activities before they are structurally and functionally ready. Some parents and grandparents recognize the need for developmentally appropriate activities but are not sure what those activities are. Other parents are willing to leave motor development to chance. There appears to be a need for parent education in the area of childhood motor skills.

Involvement in KinderSkills can benefit each generation. Children's skills and self-confidence levels can improve. There is plenty of opportunity to enhance adult-child relationships. As a result of being encouraged to model efficient movement patterns, some parents and grandparents have demonstrated improvement in their own motor skills! Each generation spends meaningful, productive time together---learning, sharing, and having fun.

Parents

The unique feature of KinderSkills is the utilization of the parents as teachers of motor skills for pre-schoolers. Parents are excellent teachers. They are the universal teacher. As part of child-rearing they teach so many subjects. Why not motor skills?

Weekly for ten weeks each semester parents are actively involved in structuring, supervising, and evaluating their child's progress in acquiring basic motor skills. In an orientation session the parents learn teaching tips and modeling behaviors and they are given a workbook which maximizes their experience. The parent and child work together; however, assistance is always available from WVU undergraduate and graduate students. The adult participants have been offered continuing education units. The local Head Start also offers continuing education "scholarships" to some parents by paying for the registration fee.

Grandparents

In a separate but parallel program, grandparents attend KinderSkills with their pre-school grandchildren. They learn new movement patterns and re-learn previously acquired patterns. The skill levels of the grandparents have been shown to improve as a result of being taught to model skills. The children learn that their grandparents are quite capable of performing motor skills and this awareness may lead to increased bonding among two generations that, historically, have gradually been pulled apart.

Children

The children in KinderSkills range in age from 2½ to 5 years. Most are making normal progress in motor development, however some are referred to the program by physicians or physical therapists. The children are delighted to see Mom or Dad participating with them in these very special activities. The skills being taught include: throwing, catching, kicking, jumping, striking, balance, spatial awareness, rhythms, and fitness. All skills are taught in both the gymnasium and the pool environment.

Students

KinderSkills attracts student clinicians from a variety of disciplines on campus. The academic units which are involved on a regular basis for laboratory observations are: Physical Education, Early Childhood, Child Development, Developmental Psychology, Recreation, Nursing, and Physical Therapy. There are courses available and internship opportunities which offer work experience in the program. The roles of the students have been to assist the parents and grandparents, assess the skill levels of the children, generate new equipment ideas for learning stations, and implement programs in local day care centers and pre-schools.

Other academic units have been actively involved in the program for more than observation. The School of Engineering has selected KinderSkills as a challenging environment for terminal projects in electrical and mechanical engineering. As a result, the program has acquired very original and somewhat sophisticated equipment items. Finally, the Department of Photography regularly uses KinderSkills as a laboratory for their students to take still and moving pictures in both the gymnasium and pool environment.

Aquatic Environment

Each week the children and parents divide their time between the gymnasium and the pool environments. It is a water program designed to parallel the gym portion of KinderSkills. The skills and activities are simply transferred to the aquatic environment.

In traditional swimming programs so much emphasis is placed on the water that the child may become overwhelmed. The water often consumes the child's attention making learning even more difficult. In KinderSkills the children are made aware of the water as they solve their movement challenges or practice their skills. In some cases body management activities are a little easier in the absence of gravitational force, i.e., climbing, chinups. In other situations, skills which are quickly mastered in the gymnasium environment may be more challenging in the water, i.e., walking on a balance beam, kicking a ball.

The learning stations are designed to have the child in a variety of depths of water to encourage the child to gradually consider the water a fun environment. The entire aquatic program is conducted in the shallow end of the pool so that even non-swimming parents can enjoy participating. The parents utilize the same teaching techniques in the pool as they did in the gymnasium and they hold the same expectations for their child's performance. This has proven to be meaningful, special time together for parent and child.

Interdisciplinary Projects

In an effort to keep the program novel and refreshing for returning children, and to provide a challenging learning experience for WVU students, all students involved with the program must design and construct a developmentally appropriate learning station. They range from very inexpensive and simple to very inexpensive but sophisticated. Examples of student-generated projects will be shown in the slide show.

An on-going interdisciplinary venture between the School of Physical Education and the School of Engineering has produced extremely innovative learning stations for KinderSkills: a total body video game, an electronic batting practice machine which uses a simulated ball, and an electronically programmed rhythms platform to name a few.

You might be asking yourself how would the unlikely coupling of Physical Education and Engineering take place in any university setting where so many professors are compartmentalized and often very focused in their work. In our situation, KinderSkills hosted an Open House and invited faculty from across the campus to attend and observe for one evening session. We encouraged each academic unit to send at least one representative to determine if KinderSkills would be of any value to them as an observation lab or clinical experience. As a result of this one effort we established a working relationship with Nursing, Special Education, Child Development, and Physical Therapy.

The most productive and tangible outcome of our "Show and Tell" Open House was the working relationship established with the School of Engineering. Rather than a need for observation labs, they expressed a need for project ideas which would challenge senior engineering students. After discussing the possibilities, it was very apparent that we were structuring an interdisciplinary venture which would mutually benefit both schools.

The Engineering Senior Design course as a two-semester sequenced course. In the first semester the students do a system design and write a formal proposal describing the project including a proposed technical description, functional specifications, budget, and a time table. The process during the first semester is intended to ensure that the sponsor (KinderSkills Director) has the opportunity to work with the students to develop the functional specifications that will meet the sponsor's needs and also to allow the instructors of the engineering course to ensure that the project will be a significant design experience. The second semester is devoted to detailed design, construction, and debugging. This terminal project, required for graduation, is organized much like a thesis. It must be defended orally to a committee of Engineering faculty, students, and the sponsor before the construction phase of the project may begin. At the end of the construction semester, the project is judged by an independent group of engineers unassociated with the University. The engineering students also have the opportunity to observe their projects being utilized in the KinderSkills program. Examples of some engineering projects are in the slide show. The coupling of Physical Education and Engineering has truly been a rewarding experience for everyone involved.

Conclusion

KinderSkills at West Virginia University continues to remain the only program of its kind in the nation. As an intergenerational program, it utilizes parents and grandparents as teachers of motor skills to children. Emphasizing childhood education via adult education, several generations of participants are interacting and learning within the same program. By providing instruction in dual environments the child's experience base is doubled. And finally, the nature of student-generated projects and the opportunity for cooperative cross-campus ventures makes KinderSkills truly interdisciplinary.

Who would think that a childhood program of play within an environment of cartoons, bright colors, water, soft textured toys, praise, and parents would be so dramatically innovative and unique.

PLANNED INERTIA: THE STRUGGLES OF TWO EXPERIMENTAL COLLEGES

Gil Gardner

This paper reflects upon the experience of two non-traditional, experimental colleges established during the late 1960's; the University of Wisconsin-Green Bay, and the State University of New York-Old Westbury. The histories of these colleges will be assessed and compared, particularly with respect to changes from their initial commitment to non-traditional learning. In addition to the fact that both colleges were founded at approximately the same time (1968), as "special mission" campuses, other similarities in terms of size and facilities provides a useful comparison.

As many present efforts to introduce experimental, non-traditional and/or interdisciplinary programs confront a well entrenched and frequently very stodgy, disciplinary model, UWGB and SUNY/OW offer the reverse experience; of institutions built upon commitments to non-traditional learning, which have become more traditional. Opposed to what is perhaps the most popular interpretation, it will be argued that concessions to traditional models of education have not been primarily a product of more conservative social and political conditions, or the diminution of student activism over the past twenty years. Indeed, as Boyer (1985) notes, in the present era of social and political conservatism, higher education is, curiously, leaning in a non-traditional direction. Also, as Newell (1983) argues, interdisciplinary programs are not only ideologically possible, but are fiscally reasonable in the 1980's. Thus, this paper argues instead that the early plans, and in some cases an intentional absence of planning for both campuses, created serious problems -- problems which have forced these schools to adopt more traditional approaches to learning over the past twenty years. In particular, it is suggested that, contrary to the rhetoric at both institutions, these colleges were designed with a greater concern for suppressing student activism than an interest in student concerns over lack of relevance and value commitment in higher education.

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Inauspicious Origins

Both UWGB and SUNY/OW were established amidst the turmoil of student protests during the mid to late 1960's. Wisconsin and New York were the sites of some of the earliest and most volatile of these protests. The creation of "special mission" colleges in these two states can not be separated from this activism. In the book Legacy of the Seventies Mayhew (1977) unites the UWGB and SUNY/OW experience in this way:

> The chancellor of the University of Wisconsin at Green Bay had long reflected on the meaning of student dissatisfaction, and when he was given the mandate to create an innovative institution he tried to express those conerns in curricular form. The fact that he had been given a mandate by the president of the University of Wisconsin system to create an innovative institution may have been related to student protest. Certainly the first attempt to operate a new curriculum at the State University of New York College at Old Westbury reflected the deep awareness on the part of the first president of egalitarianism and of the complaints of students (126).

However, Mayhew follows this statement by noting that the protests from 1964 to 1970 rarely addressed problems in the curricula, and asserts that educational reforms were instead the product of other forces. He suggests that, in part, curricular innovations in the late 1960's represented an effort to provide a model that would ensure the success of minority students -- whose entrance into colleges had been established by the 1954 Supreme Court decision, but whose special needs, once accepted into college, had been ignored.

It is difficult, however, to support the position that concern for minority education was a central component in the early design of either UWGB or SUNY/OW. Green Bay is over a hundred miles from the concentration of Wisconsin's minority populations in the Milwaukee-Racine-Kenosha area. In the late 1960's there were virtually no blacks, few hispanics, and only a small Native American population in Green Bay. While UWGB has had outreach programs to the local maximum security prison, with a large minority population, and the Oneida and Menominee reservations, the student body at UWGB, from the late 1960's to the present, reflects the absence of a substantial minority population in the area.

Similarly, SUNY/OW's immediate location is in a predominantly white, affluent area of Long Island. There were some blacks in the first class of 85 students at Old Westbury in 1968, but the number of blacks and hispanics clearly did not reflect the proportion of these minorities in the New York City area. The emphasis upon minority recruitment and the special educational needs of minorities -- which has become the center of Old Westbury's claim to alternative learning -- was not primary in the original mandate for the college, but was raised by student protests in the first year. During their first year many students became substitutes during a New York City teacher's strike and, according to Dunn (1973), were sensitized to the educational needs of minorities. Student's proposed a quota of 50% non-whites at Old Westbury but were turned down by the faculty and administration. Sympathetic to the issue, however, the administration did take steps to recruit a greater proportion of minorities for the next year's class of 200. Since that time, Old Westbury has indeed maintained a relatively high level of commitment -- albeit not without frequent conflict -- to serving minority populations. The state, however, has never been forthcoming with the resources to support such a challenging commitment.

Thus, the primary incentive for establishing these "special mission" colleges can not be found in either a desire to meet the demands of student protesters or the needs of minorities. However, the creation of both UWGB and SUNY/OW was tied to student protests and, to a lesser extent, civil rights activism, in another way.

In comparing UWGB and SUNY/OW the similarities in location, facilities, and relationship to the community are immediately apparent. UWGB is located in the center of approximately 700 acres of land on a former golf course/country club overlooking the waters of Green Bay. The campus is several miles outside of the city. This location; an architecture foreign to the area; the college's focus upon a specific theme -- "humans and their environments"; and the unusual nomenclature of the interdisciplinary programs; immediately alienated the campus from the community.

SUNY/OW is also compacted and centered on about 600 acres of land -- the former estate of F. Ambrose Clark -- replete with horses, stables and rolling pastures. Surrounded by affluent neighborhoods and other estates, the college of Old Westbury is isolated from communities in New York and Long Island. Many of those living not more than a mile from the campus for the past twenty years are still unaware of its existence. The experimental nature of the programs in this very conservative area of Long Island further served to alienate the campus from the community. These barriers to acceptance would be reinforced as Old Westbury developed a commitment to the educational needs of the poor and minorities. The locations of the UWGB and SUNY/OW thus belied a commitment to student demands for relevance to what was then perceived as the most pressing social problems, such as racism and urban decay, and to serving the needs of the local community.

It was soon recognized that the (award-winning) buildings on both campuses, supposedly inspired by the cluster college model, were destructive in terms of creating community. The buildings at UWGB and at SUNY/Old Westbury are connected by a maze of underground tunnels and walkways. Even after several years on either campus one frequently feels lost and disoriented. The plans for each campus did not include, and indeed struggled against, a central meeting place for students, opposed to the quadrangles and other gathering places on traditional campuses.

Herein lies a primary incentive for the formation of the two campuses. The protests and bombing at UW-Madison, in the heart of the state capital, and the sit-ins and demonstrations at Columbia University and elsewhere in New York City, were vivid examples of the potential for disruption, and, in particular, exposed the potential of a coordinated student-community effort. UWGB and SUNY/OW offered an alternative; where the activities of some of the most radical students could be easily contained and isolated from the community. At UWGB there were iron gates in each tunnel that could be dropped to isolate buildings, and at SUNY/OW numerous doors could be locked to contain or protect any of dozens of small sections in the Academic Village. Administrative offices at both institutions were separated from classes and protected from the majority of students. At UWGB the administration was located on the top floors of a "library - learning center" -- which towered over the other buildings, and was supposedly accessable by helicopter. Similarly, the offices of administrators were on the top floors of a separate building, removed from the Academic Village where most classrooms and student areas were located at SUNY/OW.

It may be argued that these security concerns were only secondary, and that the primary interest was the creation of a college which incorporated some of the radical critiques of higher education. However, the planning and careful integration of alternative concepts of education was sparse and ad hoc. After the commitment to Old Westbury had been made, and a president and core faculty had been appointed, there were discussions with some of the "experts", including David Riesman and Jacqueline Grennan. But this advice was riddled with contradictions. More extensive discussion, debate and resources were needed before so many of the parameters of the campus were established.

The absence of specificity accompanying a lack of planning, and the very non-traditional, and as some would say unrealistic, aspirations of the campuses, appears to have facilitated the development of these colleges. In particular, the colleges' alternative design and lack of planning did not conflict with established programs in either the UW or SUNY systems, and thus skirted the frequently intense opposition arising from territorial disputes. Considering the unique nature of the two campuses, students were thus admitted relatively very soon after the initial idea had been proposed -- students who, in the early years of the experiments, did indeed represent some of the most non-traditional, critical voices.

The problems created by the mismatch between the college and the immediate community, the architectural destruction of the college community, and a lack of planning were to plague both colleges. Ironically, those at UWGB often suggested that the college would have been more successful in the New York City area, where non-traditional programs and nomenclature would have been more readily accepted and appreciated. However, it would have been difficult to find a less receptive community in the New York Metropolitan area than where SUNY/OW was located.

Survival In An Era Of Retrenchment

As social protests subsided during the 1970's, the wider appeal of the alternative education offered on the two campus also dissipated. The number of students applying from outside the state and outside the city fell rapidly, and there was a crisis in enrollments. Falling far short of the targets projected in the late 1960's, both UWGB and SUNY/OW have struggled to achieve their present enrollment of about 4500 and 3500 respectively. Even to maintain this modest size, it was necessary to make concessions to alter perceptions in the immediate community.

It was more readily apparent at UWGB than SUNY/OW that the survival of the campus depended upon the acceptance of a very homogeneous local community. Green Bay, with a population of under 100,000 was the largest city in a radius of over 100 miles from the campus. SUNY/OW, however, had a very heterogeneous population of over 10 million people to draw from as potential commuter students. Consequently, there was the appearance for some time that there were more options for sustaining a commitment to the experiment at Old Westbury with respect to recruiting students.

The colleges and concentrations at UWGB were organized around the theme of solving the problems of humans and their environments. It is perhaps not entirely coincidental that the early protests and bombing at UW/Madison focused upon campus recruitment by Dow Chemical, because of the company's production of napalm and other environmentally destructive chemicals. Practically, however, the presence of the College of Environmental Science represented the only significant consequence of a focus upon the environment. The other colleges of Community Science, Creative Communication and Human Biology were, as Levine (1973) suggests, not substantively different from the traditional divisions of Social Science, Arts and Humanities and Natural Sciences. The School of Professional Studies covered the other areas of teacher education, business, leisure science, etc.

What was perhaps most significant about UWGB's theme, however, was the recognition that solving problems required an interdisciplinary solution. The concentrations or majors reflected this non-traditional, interdisciplinary commitment at UWGB. But perhaps with the exception of the buildings at UWGB, the nomenclature of the concentrations -- e.g. analysis/synthesis (or anal-syn as it was known to most) and modernization processes -- was most responsible for the raised eyebrows and rejection by a large part of the Green Bay community.

What provided a compromise for local students in particular, was that UWGB also offered students the opportunity to select an "option" or minor which corresponded to traditional disciplines. The disciplinary minors or options, however, did not have faculty lines or a budget, and thus did not threaten or conflict with the interdisciplinary emphasis. Adjustments to the interdisciplinary concept at UWGB were, therfore, relatively painless. Initially, students were required to have an interdisciplinary major or concentration, and could select a disciplinary minor. Later, students were given the option of selecting either an interdisciplinary or a disciplinary major, However, if a disciplinary major is selected, an interdisciplinary minor is also required. In addition to this change, many concentrations changed to more familiar names -- e.g. modernization processes to social change and development.

A significant diversion from the interdisciplinary model came from the rapid growth of the business or managerial systems concentration. This major was considered an interdisciplinary concentration and thus received faculty lines and a budget. Managerial Systems soon captured the greatest number of majors. While it was difficult to argue that this program was interdisciplinarity, problems with enrollments and with community perceptions deafened protests against both the lack of interdisciplinarity and the obvious incongruity between the college's environmental mission and a traditional business program.

External pressures to move toward a more traditional model were also part of the impetus to establish general education requirements at UWGB during the 1970's. While there was frequent conflict over the nature of the courses, the general education requirements -- variously called Liberal Education Seminars (LES) and All University Requirements (AUR) -- have maintained an interdisciplinary character. As the disciplinary options did not have a budget, and therefore an economic stake in securing a presence in the general education curriculum, members of concentrations were free to construct interdisciplinary courses for general education. Additionally, part of the lines of faculty in many concentrations were designated as general education (LES/AUR) positions. After lines had been assigned to the general education program, the frequently heated and destructive conflict between programs to include their courses in the general education offerings was eliminated. General education faculty were encouraged to develop creative, interdisciplinary offerings, and to design more intensive, two and three semester courses. At present, students are required to take three, three course interdisciplinary sequences in the areas of Humanities and Fine Arts, Natural Sciences and Social Sciences, and a one semester interdisciplinary senior seminar.

In addition to changes in the curriculum, a student center was constructed soon after the initially planned construction was completed at UWGB -- even though these original buildings had been designed for a much larger student population. The campus also made its relationship to the immediate community a priority -- a relationship which has improved significantly over the last decade. Thus, while some problems still exist, UWGB -- with a substantial interdisciplinary orientation -- has clearly become a permanent and increasingly accepted institution in the Green Bay community.

Unlike UWGB, SUNY/OW did not begin with a specific theme or model upon which the college would be based, or a fiscal structure that would ensure a non-traditional/interdisciplinary approach. As Harris Wofford, the first president of Old Westbury charged, the college was one that "plans rather than a planned college" (Dunn 1973:200). As a primary component of the initial mandate, students as well as faculty were given "full partnership" in determining areas of study and research. And during the first year the primary battle lines for debate over the next twenty years were fixed -- i.e, the number of non-whites in the student body, and the nature of the curriculum. Thus, student protests against the "value-free" nature of higher education was not depleted, 'a priori', by a focus upon a particular social and political commitment -- e.g. the environment. SUNY/OW chose instead -to engage in the more ongoing exercise of developing socially and politically committed models of learning.

This sharing of power in the decision making process, combined with the isolation from the community, helped to focus and channel student dissent to educationally related issues. Indeed, conflict and protest seemed to be built into the fabric of Old Westbury -- and, thereby, more easily managed and contained. At one student "sit-in" related to curriculum, President Wofford left sherry for students to drink (Dunn 1973:204). Presently, two decades of struggle and conflict over curricular issues has also exhausted and re-focused the energies of many of the once very socially committed and activist faculty.

The first programs at SUNY/OW were interdisciplinary. Opposed to the "College of the World" emphasis which Wofford had envisioned, the first and only program during the initial year was, at the insistence of students, an Urban Affairs concentration. An interdisciplinary core curriculum was dismantled in 1971, under pressure from students who charged that it lacked direction. However, three sets of general courses were agreed upon at this time: Comparative History and Culture; Politics, Economics and Society (with a Third World emphasis); and American Studies (with a white ethnic focus). With minor modifications, these three programs were to provide the foundation of Old Westbury's interdisciplinary offerings to date -- with the Urban Affairs (Studies) program gradually eroding and finally eliminated during the past year.

Old Westbury had serious gaps in the curriculum as a consequence of being intentionally unplanned. For example, there were no offerings for those who wished to major in physical and biological sciences during the first years. Indeed, the first building to be constructed after completeing the initial plan was a science building with laboratory facilities, opened in 1985. And since the three interdisciplinary programs were established in the early 1970's, virtually all of the additional programs have been disciplinary -- Psychology, Sociology, Chemistry/Physics, Biological Sciences, Computer Science and Teacher Education. Old Westbury has also established four separate majors in business -- Accounting, Business Economics and Finance, Business and Management, and Marketing -- each with its own convener (chair). And a fifth major in Finance is presently being considered. As is the case at UWGB, more students major in business than any of the other programs.

As Dunn (1973) indicates, one of the "puzzles" of Old Westbury was that there was "neither a desire for, nor a rejection of, specialized work in a discipline" (p.220).

Thus, Old Westbury, with problems in enrollment and a negative perception by many in the community, has been easy prey for the market inspired model of higher education. Moreover, a commitment to the educational needs of poor and minority students required additional funds for faculty development and a more effective, innovative curriculum -- money which has not been forthcoming. Consequently, some faculty have settled for more proven, conventional courses and methods of instruction in an attempt to provide students with basic skills.

There has also been a renewed struggle in the last several years to re-institute general education requirements at Old Westbury. This recent effort appears to be motivated by market pressures to make SUNY/OW appear more traditional and academically rigorous to members of the community who have equated the presence of many educationally ill prepared students with an inferior learning experience. In addition, and what makes the present effort one that may, finally, succeed, is that interdisciplinary programs, seriously drained of majors by the disciplinary programs, have also been directly confronted by market pressures. An administrative emphasis upon FTE's during the past five years has threatened the existence of many interdisciplinary offerings and entire programs. Thus, general education requirements have also been pushed by the interdisciplinary programs as a means to generate enrollments for their courses.

With no additional funds for a general education curriculum, and with open warfare between programs -- in contrast to the designated general education faculty working more in unison at UWGB -- present proposals represent a patchwork of compromises which will likely result in the customary smorgasbord of dozens of one semester courses falling into disparate categories of knowledge, without a unifying theme or commitment. As Wofford indicated nearly twenty years earlier: "For all their thirst, [students and faculty] tended to settle for academia's dirtiest water, the ultimate irrelevance -- an undisciplined and unintellectual curriculum in an unlimited version of the elective system" (Dunn 1973:20) Now, Wofford's analysis may apply to the general education program, the last, and most obvious opportunity for SUNY/OW to re-capture aspects of its commitment to construct an alternative educational model. With many colleges fighting for poor and minority students in an era of declining enrollments, the primary social commitment of SUNY/OW today -- to admit educationally disadvantaged students -- is commonplace. Creating a general education program with an emphasis upon the special needs of poor and minority students, in the context of student/faculty discussions which attend to the social and political conditions responsible for intellectual oppression, would be more consistant with Old Westbury's mission. But this is unlikely.

Nevertheless, the present debate on the general education curriculum could still continue, ad infinitum -- thereby reflecting perhaps the most lasting aspect of the college's initial mandate. At Old Westbury the entire faculty meets once each month and must affirm all college-wide decisions and changes, while the faculty at UWGB rarely meets as a whole, with decisions passed by a representative senate. In the early years students were central to these discussions, as the mandate emphasized. For many years, however, it has been only faculty who have debated the issues. The learning experience accompanying the democratic process at Old Westbury has thus ceased with respect to students, and many faculty are weary of the struggle.

Conclusion: The Future Of Non-traditional Programs

With the underlying motives for founding UWGB and SUNY/OW directed at preserving the status quo, these schools faced an uphill battle in terms of creating and sustaining non-traditional, socially progressive learning experiences. Both colleges have, consequently, fallen easily to a market driven curricula which emphasizes "professional skills", and particularly business related courses and programs of study. There are, however, significant differences in terms of the concessions that have been made. Due largely to an initial commitment to interdisciplinary education, and a structure of funding that reflected this commitment, UWGB has maintained a substantial commitment to an interdisciplinary curricula. There have also been a number of successful community outreach efforts. The emphasis upon interdisciplinary learning is less prominant, and still confusing at SUNY/OW, and there is very little involvement in local community issues. However, a commitment to a more democratic decision making stucture, at least with respect to faculty has been sustained. The commitment to minority enrollment has also been maintained, albeit not without conflict. About half the students at Old Westbury are Black and Hispanic, and the college has, proportionately, significantly more minority faculty than any other SUNY campus.

Having established a more firm base in the community, and with relatively more stable enrollments, UWGB may be poised to participate with other colleges in further experimentation in the next decade. SUNY/OW, however, with problems in community perception and related concerns with respect to enrollments may drift for some time in a more traditional direction. Indeed, even Westbury's commitment to minority students has been seriously threatened, and could be eroded with pressures to increase and stablize enrollments by drawing from local white communities.

This discussion, however, has focused upon the more tangible, objective dimensions of the programs at each college. On both campuses there is a dwindling, but still significant faction of the faculty who have maintained a critique of traditional methods of education and understand the value of an approach which is less authoritarian and more socially relevant and committed. SUNY/OW, drawing its faculty from all parts of the New York Metropolitan area, has attracted and retained a large number of progressive people, who have been pioneers in non-traditional approaches to their teaching and research. There is the possibility that a concerted effort on the part of a faculty that, albeit frequently exhausted from the process of decision making, may, at some point, reverse the present direction, and make a more radical contribution to non-traditional education.

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ESSENTIAL LEADERSHIP SKILLS OF THE DEAN/DIRECTOR OF CONTINUING EDUCATION

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One might earn either applause or ridicule for developing a grand theory of leadership applicable to all deans/directors of continuing education. On the one hand, indeed, if the grand theoretician somehow were successful, the forthcoming plaudits most likely would be tremendous, perhaps even reaching the zenith of professional recognition in the field. On the other hand, however, the practical value of a grand theory is highly questionable--perhaps even a bit ridiculous--especially in light of the wide differences in circumstances which confront deans/directors of continuing education. Hence, the most prudent course is simply to identify certain leadership skills with practical applications which will increase the CE leader's chances of success in dealing with a complex array of situations.

This presentation rests upon several key assumptions, including the primary one that CE leaders work under no standard conditions and share no standard concerns and responsibilities. Some CE leaders are charged with generating significant surplus program revenues while others enjoy the benefits of adequate budgets allocated specifically to support non-traditional education and public service. Some manage only credit programs while others deal only with non-credit activities. Some are associated with small private institutions while others serve at large multi-campus public universities. Regardless of the specific circumstances, however, it is assumed that leadership matters today and that CE deans/directors can apply leadership skills to define and clarify their own proper role as well as to achieve their institutional goals. Further, it is assumed that one of the major reasons leadership counts today--unlike the way it worked for the captains of industry of the gilded age or even the university-builders of the mid-twentieth century--is because today's academic leaders must excell at promoting decisions which are reached in the open and which result from team action. Finally, it is assumed that CE deans/directors are expected (but not necessarily given the resources) to

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accomplish something more complex than trivial administration; indeed, something which often calls for initiative, creativity, change, progress...for leadership.

Perhaps the basic characteristic required of the successful CE leader is an enthusiasm and eagerness to join hands with others to achieve worthwhile objectives. In a manner free from the self-centered desire for personal glory, this trait rests upon an abiding faith in the collective wisdom of respected colleagues as the best source of crucial knowledge. The same trait must enable the CE leader to engender the requisite hard work and the commitment of others--from presidents and vice-presidents to deans and chairs and faculty members--to move toward, or at least to accept, established goals for non-traditional education and public service. It may also require the ability to delegate considerable responsibility in diverse areas ranging from budgetary considerations to program development and implementation.

The CE leader who works eagerly with others on major objectives also will possess a clear idea of where his or her institution should be headed in continuing education. In order to achieve the greatest impact, however, the CE leader's conception should be expressed in a strategic plan which clarifies the institution's commitment to non-traditional education and public service. This vision may even rest confidently upon the CE leader's assumption that, within the next few years, the institution will be recognized widely for its accomplishments in continuing education.

Just as important for the CE leader as the aforementioned basic characteristics is the appropriate academic background. This trait should reflect an understanding of the academic community, the campus ethos, the scholarly process. Moreover, the CE leader's credibility and stature will be enhanced by possession of the doctorate and the other credentials usually necessary for a tenured faculty appointment, preferably in a traditional academic discipline. In addition, many leadership advantages may exist for the CE leader if his or her career experiences include such activities as classroom teaching and scholarly research resulting in publications.

Because specific program achievements often require innovation and progressive change, the CE leader must possess the ability to act as a catalyst in effecting educational change. This critical skill cannot be developed, however, unless the CE leader first understands the process of change. Perhaps the key factor leading to social change is acceptance of the new order by those affected: without the support of certain campus officials or groups within the institution, for example, few CE leaders will be able to engage in new corporate-education partnerships, utilize new telecommunications technologies, or establish new inter- disciplinary curricula. If the old order on campus is indifferent at best to change, the CE leader may be required to act as a change agent by creating a climate for innovation and educational change.

Essential from a more practical standpoint are the strong leadership skills necessary to transform the status quo into an atmosphere conducive to educational change, to turn concepts into reality, to turn ideas into successful programs. In this context, of course, the basic concern shifts naturally from the major directions as outlined in the strategic plan to the key methods for getting from point A to point B. Toward this end, the CE leader must follow some basic principles of sound administration: (1) remain in close contact with program coordinators and with program faculty members; (2) maintain the highest possible credibility both throughout the institution and within the community by stressing quality and fiscal responsibility; (3) promote a strong sense of shared involvement by drawing the proper groups into the process of program design and implementation at the earliest possible point so that they will become responsible and can affect the outcome in positive ways.

While careful attention to the aforementioned principles will enhance effectiveness in program implementation, the CE leader also must be an accomplished problem solver. On the one hand, this skill may require the application of such imprecise tools as common sense, judgment, or wisdom. In other instances, it may call for highly rational, highly systematic analyses of all sorts of problems or proposals. In every case, however, problem-solving ability is a skill necessary to the CE leader because without it he or she cannot carry out the crucial processes of planning and coordinating which always are necessary to get from point A to point B.

In addition, the CE leader sometimes must exercise the skills of the entrepreneur; of the pathfinder who proclaims a clear mission for non-traditional education and public service. In certain respects, indeed, the skills of the entrepreneur may be essential in order to conceive of and to gain approval for innovative new programs. Moreover, new directions or big breakthroughs--whether in the academic world or the corporate sector--are produced almost always by bold leaders with entrepreneurial skills; almost never by meek members of the typical bureaucratic system.

Finally, the CE leader's talents must include many other important skills. Foremost among these should be the following: (1) the intellectual capacity and the verbal and written talents to formulate and express a coherent philosophy of non-traditional education and public service; (2) the ability to garner the maximum potential benefit, in a manner consistent with budgetary constraints, when setting priorities and making resource allocations; (3) the ability to choose and to develop qualified colleagues as staff members; (4) the capacity to remain fair and flexible and keep a sense of humor in the face of frustration and opposition; (5) the ability to maintain, even in times of great adversity, a firm commitment to academic excellence and to moral principle.

STUDENTS' PERCEPTIONS OF COURSE COMPONENTS IN EXTERNAL DEGREE PROGRAMS

Ashton D. Trice and Allison A. Hoge

Beginning with the work of Johnstone and Rivera (1965), adult educators have questioned the utility of many aspects of the traditional "course" for mature learners. While this questioning has been a largely healthy enterprise, leading to a body of knowledge about the special needs and abilities of the mature learner (e.g., Cross, 1983), the wholesale abandoning of the forms of the traditional course has lead to some discomfort among traditionally-oriented educators. Plecas and Sork (1986) have suggested that such criticism has often resulted in the hardening of attitudes among adult educators rather than leading to exploring further the assumptions about the nature of the mature learner and methods of fostering learning. Clearly such hardening of attitudes is not indicative of the whole discipline of adult education. Research continues to determine such important variables as individual differences which affect success in distance courses (Thompson & Knox, 1987) and methods of enhancing the quality of self-directed learning programs (reviewed in Schuttenberg & Tracy, 1987).

The two studies reported in this paper are retrospective analyses of students' perceptions of the value of courses vis-a-vis the components of the courses. Students' perceptions of courses are only suggestively helpful measures of the value of courses. Most of us can recall courses which were experienced as highly adversive but which had a later pay-off, and most of us can recall pleasureable and valued courses about which we later questioned the worth. But as a preliminary investigation, given the caveats about the soundness of the data for some purposes, these investigations may suggest other avenues of research.

Course Ratings

The first study involved student ratings of correspondence courses they had just completed. The 94 students in this study

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completed one or more courses by contract with traditional faculty in an external/evening A. A. program at a private college. As part of on-going evaluation of the program, students rated the course on 10 5-point Likert scales, including ratings of amount learned, personal value of the learning experience, quality of course text materials, responsiveness of the tutor, fairness of the evaluations of the student's work, and a general comparative rating of the experience. Forty-six course titles were included, and 197 correspondence contracts were involved in the evaluation.

The contracts of the 25 highest rated courses and the 25 lowest rated courses were examined. Of the 25 highest rated courses, 7 were direct inquiries (student selected topics) while 5 of the lowest rated courses were directed inquiries. The typical suggestion that students value self-selected learning topics was not confirmed in this examination, although it should be noted that most of the A.A. students were very career-oriented, and less than 20% of the correspondence courses in this program were special topics courses.

Those courses rated highest had significantly more tutor contact written into the contract than those rated poorest (4.1 contacts versus 1.9 contacts), employed a comprehensive text more often (88%) than the poorest courses (48%), and employed a research paper more often (52% versus 28%). The number and types of tests, the presence or absence of a final examination, outside readings, journals, and practical experiences did not distinguish between the overall ratings.

Best Versus Worst Course Nominations

The second study asked graduating seniors ($\underline{N}$ = 42) in the final cohort of a B.A. program at the same institution to select their most valuable and least valuable course. Subjects then provided a written retrospective description of these two courses. A checklist of course components was then completed for each course.

The majority of best courses were in the students' majors, typically entry level courses. The worst courses were typically core curriculum courses taken late in the students' curricula. Best courses were characterized by extensive reading which supplemented an integrative text, usually culminating in a paper, and high contact with the tutor. Worst courses typically had either a read-and-test format employing only a text or were described as having had few or vague course requirements. Best courses employed a "great" text, while worst courses employed "poor" or "boring" or "obscure" texts.

Discussion

While these two studies found differences in course components contributing to valued versus nonvalued courses, there were four consistencies between the two studies. Integrative, high quality text material are important to students in correspondence courses. Student value self-selected reading and writing which supplements the instructor-designed components of the course. And students value written, phone, or face-to-face contract with the instructor. Also suggested by these data is that students do not value courses where course requirements are vague or minimal.

As with all local research, there is the real probability that these result will not generalize to other populations. The college which was offering these two programs was in an economically distressed area, and most students enrolled were involved in career training. Students in the B.A. program may have been influenced in their perceptions by the college's decision to retrench to an A. A.-only external program, thereby forcing some students to complete their programs faster than expected. In order to test the external validity of these studies, they are being replicated at the institution with which we are now affiliated. Preliminary analyses of these studies suggest substantial replication of findings.

It is probable that the critics of external degree programs will not be much impressed by the findings that mature students value opportunities to explore personally important issues though self-directed reading and writing. It is also probable that those committed to the correspondence mode of instruction will not be much influenced by the finding that these students valued substantial contact with their instructors, nor will those who vision the adult learner as totally self-directing be convinced by the finding that an integrative text was seen as critical.

Three questions are suggested by these data which we intend to begin addressing shortly:

1. What makes a good text for external degree students? Are the chracteristics which are examined in rating texts for lecture-type traditional courses essentially the same for the mature learner?

2. What are the differences in students' perceptions of course components between those students enrolled in career-oriented curricula and those enrolled in "liberal arts" programs?

3. How do we effectively communicate the concerns of traditionally oriented faculty and the knowledge-base deveoped by adult educators to each other?

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INSTRUCTIONAL STRATEGIES FOR NON-TRADITIONAL LEARNERS

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The quest for the development of broadly acceptable instructional theory has led to a growing interest in the design science of instruction (Glaser, 1976; Reigeluth, Bunderson, & Merrill, 1978). The goal of this new science is to develop a cadre of those prescriptive principles of instruction which may be applied by instructional designers for use in a variety of instructional settings. Reigeluth and Merrill (1979) state that when a sufficient number of these principles have been identified, defined, and validated teaching methods can then be prescribed that will optimize learning for given sets of conditions. In addition, when a set of models of teaching can be developed from these principles, they can then comprise a basis for an acceptable prescriptive theory of instruction (Reigeluth & Darwazeh, 1982).

A widely researched aspect of designing instruction deals with structuring and sequencing information. Structure refers to the general organization of instruction while sequencing "refers to the design decisions pertaining to the order in which subject matter is presented (i.e., the relationship of concepts and principles within a knowledge domain), which build upon existing cognitive structures to produce new or elaborated cognitive structures" (Tillema, 1982, p. 170). A major researcher who has helpted to shape this area of study is Robert Gagne (Minill, 1977). His theory known as the cumulative learning theory (Gagne 1968a), is based on the construction of learning hierarchies for the purpose of systematically organizing information to be learned through an analysis of the final task or behavioral outcome of the instruction.

More specifically, this task analysis begins with the final behavioral task from which all subordinate capabilities are identified. The hierarchical relationship of these capabilities is then organized by evaluating what the individual would have to know how to do in order to exhibit this new capability or task (Gagne, 1968b). The levels of these capabilities in the hierarchy are then related to the levels of learning (Gagne and Briggs, 1974), where each capability corresponds to a type of learning classification, i.e., problem solving, priciple learning, concept learning, multiple discrimination. Each level or type of learning is also designed as being prerequisite to the one above and, therefore, must be learned before the student can go up the structure to successfully complete the desired task.

This analysis of prerequisite learning is necessary when designing sequences of instruction. Although the learning hierarchy itself does not directly present the desired or needed sequence of instruction, according to Gagne and Briggs (1974), it represents a king of intuitive logic which provides a meaningful context for a design.

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Advanced Organizer

One model of teaching advocated for use in task analysis is the "Advance Organizer" (Gagne and Briggs, 1974). This model, based on the theory of meaningful learning, has been a topic of research for the past 15 years. Joyce and Weil (1980) state that the primary goal of the advance organizer is to convey large amounts of information in as meaningful and efficient a manner as possible. Therefore, the advance organizer is well designed to teach broad concepts and principles which require the synthesis and assimilation of many subconcepts and facts into broader, more meaningful thoughts. Ausubel (1968) defines advance organizers as "appropriately relevant and inclusive introductory materials... introduced in advance of learning... and presented at a higher level of abstraction, generality, and inclusiveness" (p. 148). Ausubel (1977) further states that the function of the organizer is "to provide specifically relevant anchoring ideas for the more differentiated and detailed material that is subsequently presented" (pp. 167-68). The organizer may then represent a design for the optimal sequencing of those competencies necessary to successfully teach the desired principle, concept, or fact. Mayer (1979) presents five major characteristics of the advance organizer:

> (1) Short set of a verbal and visual information; (2) Presented prior to learning a larger body of to-be-learned information; (3) Containing no specific content from the to-be-learned information, (4) Providing a means of generating logical relationships among elements in the to-be-learned information; (5) Influencing the learner's encoding process (p. 382).

One important characteristic of an advance organizer is that it is not designed as a summary or an overview. Summaries or overviews are presented at the same level of abstraction, generality and inclusiveness as the learning materials themselves. "They simply emphasize the salient points of the material by omitting less important information, and largely achieve their effect by repetition and simplification" (Ausubel, 1968, p. 148). The goal of the advance organizer, in contrast, is to prescribe a cognitive framework within which all subsequent instruction may logically fit.

Concept Elaboration

Another distinctive task analysis model of teaching and theory is the "Concept Elaboration Theory of Instruction" (Merrill, 1977). Like the advance organizer, concept eleboration prescribes a framework within which broad concepts, principles, or procedures may reveal logical order. However, unlike the advance organizer, in which the entire organizing structure is presented at the beginning and end of the instructional process, the concept elaboration model intersperses its organizers or epitomes throughout the entire instructional experience by moving from a general-to-detailed sequence of instruction. Reigeluth (1979) draws an analogy with the process of zooming in and out of a camera lens. In order to see all of the parts of the picture, a person starts with a wide angle view of what is to be learned. Then the peroan zooms in on one part, halting the zoom at different levels, to study the interrelationships of the explored part with other parts of the picture. After part of the picture is satisfactorily explored or elaborated, the person zooms out and repeats the process with another part. After all of the significant parts of the pricture have been explored, the person zooms back out to the wide-angle position. At this point, the broadest topic of the instruction, or epitome, will be satisfactorily understood.

Reigeluth and Darwazeh (1982) define an epitome as "an overview of the relationship between principles, concepts, objects, events or ideas which are presented at an application level including generalities, examples and practice" (p. 31). The definition is again uniquely distinctive from the advance organizer in that it does not emphasize "higher levels of abstraction, generality, and inclusiveness" (Ausubel, 1968, p. 148). Instead, it describes exactly what an advance organizer does not do, i.e., which emphasizes the salient points of the material... and acheive their effect by repetition and simplification" (Ausubel, 1968, p. 148). The concept elaboration model uniquely presents the epitomes or organizers at every level of elaborative instruction instead of only at the beginning and end of the presented information. The elaboration style of structure and sequence, therefore, naturally incorporates increasingly higher levels of abstraction, generality, and inclusiveness through a continual synthesis of information throughout the entire presentation. From these ideas, definitions, concepts, and principles the two structure and sequence models my be compared.

Comparison of Advance Organizer and Concept Elaboration

The "Concept Elaboration Model of Instruction" has been lingked closely with the "Advance Organizer" (Mayer, 1981). These two models may be defined as parallel in their design but divergent in thier application. One major distinction is that the advance organizer presents its synthesizing and summarizing information at the beingnning and end of the instruction. The concept elaboration model, on the other hand, emphasizes its synthesizing and summarizing information throughout the entire instruction, drawing interrelationships among all of the concepts, ideas, objects and events at each level of the elaboration.

The advance organizer model as described by Ausubel (1968) is desinged to teach large amounts of information through provision of "ideational scaffolding for the stable incorporation and retention of the more detailed and differentiated material that follows" (p. 148). According to Reigeluth (1979), concept elaboration is also primarily desinged to teach large amounts of information through macro-strategies which are "ways of organizing those apsects of instruction which relate to more than one topic, such as sequencing the topics, showing interrelationships among the topics, and previewing or reviewing the topics" (p.8). However, there is little or no research related to the effectiveness of the concept elaboration model of teaching. There is also little research (Wilcox, Merrill & Black, 1981) which explores these sequencing, synthesizing, and summarizing approaches to teachging concepts and principles.

Both of the advance organizer and concept elaboration are recommended for use with large amounts of instruction or macrostrategies. These approaches usually require instruction to be performed in more than one session. Reigeluth and Darwazeh (1982) have indicated an effort to subsume the ability to teach microstrategies into the elaboration theory. But can a macrostrategy ever be perceived as a microstrategy; and if so, when? Reigeluth (1979) presents an example of macrostrategy in the area of economics. He states that the principle of macroeconomics require an elaborated understanding of supply and demand and debits and credits. This may in fact be an appropriate macrostrategy for a high school student; but how difficult is this principle and concept to an adult who has never had formal instruction in economics? For the adult, who is more likely to be working at a formal operations level than a high school student, this instruction may simply be a logical process which is easy to understand. Therefore, this may be perceived as a microstrategy by an adult who can quickly comprehend this information.

Age

Piaget (1971) is his analysis of cognitive development describes the final or formal stage of development as occurring aroud 12-15 years of age. This level of cognitive development is characterized by the ability to reason hypothetically. It is the opinion of many educators of adults (Long, McCrary & Ackerman, 1979) that cognitive development continues into and across adulthood. Research in this area (Elkind, 1962; Watson, 1968; Papalia, 1972; Renner & Stafford, 1972) report the existance of college and graduate age individuals who are not yet functioning at a formal operations stage. McKinnon and Renner (1971) reported only 25% of a college freshman sample to be at the formal stage. Arlin (1975) reported that 31 out of 60 female college seniors studied were classified as formal thinkers. Chiapetta (1975) found only 47% of 15 K-8 female teachers to be formal thinkers. The results of these studies suggest that age effects the development of learning styles and individual competence. Therefore the older the learner, the greater his/her chance of working at a formal operations level and achieving higher on a test requiring little to no synthesis or summary information.

From a study comparing the three teaching approaches of Task Analysis, Advance Organizer an Concept Elaboration (Hanclosky, 1985) older learners showed greater achievement with the simplest and fastest approach, the taks analysis approach; the middle mean age group showed greater achievement using the more in-depth program, the advance organizer; and the younger mean age group show greater achievement using the other more in-depth approach of concept elaboration. It then appears that the orlder subjects responded better to simple well sequenced instruction with a synthesis at the begining and a summary at the end; and the younger subjects responded better to a ell sequenced instruction with synthesizers and summarizers interspersed throughout the entire presentation of information. Furthermore the older the subject the higher he/she achieved using a simpler instructional approach which may have perceived the information as a microstrategy.

Many of the subjects who work in the business or industry full-time and enroll in classes part-time may be more accustomed to dealing with short concise pieces of information from which to draw conclusions that traditional college age subjects. A traditional age subject, on the other hand, may be used to the more traditional teaching approaches. Knowles (1978) states that the traditional learners tend to have a problem-centered orientation to learning. This is due to the adult's need to apply immediately what he learns, while the traditional learner continually postpones his application as he graduates from one program into another.

Therefore, in the designing of instruction for adult non-traditional learners, it may be important to consider the cognitive development level of the learners, the status of educational/work experience of the learners and the perceived level of difficulty of the concepts and principles to be taught to the learner.

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ACADEMIC ADVISING BEHAVIORS OF SPECIAL EDUCATION PROFESSORS

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Introduction

The process of selecting and preparing teachers to educate exceptional children effectively is a crucial need in education. Among some authorities, the academic advisement process was conceded to be an essential component of teacher training throughout the academic life of the student.

Coppin State College has reviewed its institution-wide academic advisement process to facilitate the delivery of its teaching and learning mission. To this end, Hardee (1970) suggested that academic advisement was a multidimensional activity consisting of: (a) discerning the purposes of the institution in its teaching-learning mission, (b) perceiving the purposes of the student learner, and (c) promoting these possibilities to the student learner. However, Donk and Oetting (1968) suggested that academic advisement systems may not fulfill the above criteria. In too many instances, as Robertson (1958) noted, ". . .many members of the faculty do 'advising' it is true, but usually in a temporary, clerical capacity."

Notwithstanding the differences in the advising function as cited by the above authors, the desirable academic advisement process should ultimately inform and enhance each student's capability to function effectively as they move through the components of a personnel preparation program.

Therefore, the special education professor that effectively performs the academic advising function provides a high quality educational and information sharing service to preservice and graduate teacher education scholars.

Statement of the Problem

In this connection, the statement of the problem of this research project was twofold. First, this study was an attempt to identify the academic advising behaviors of special education professors employed by Coppin State College. Second, it was an attempt to determine the degree of effectiveness of the academic advisement process that tends to make the difference between success and failure in meeting academic advising requirements as observed by the students and the professors themselves.

Next, the statement of the problem was critically analyzed and the research questions which were asked in the study were:

1. What were the academic advising behaviors of special education professors employed at Coppin State College?

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   a. What were the expected academic advising behaviors of special education professors as explicited in their respective job functions and in the literature?

   b. What were the actual academic advising performance behaviors of special education professors?

2. What was the degree of effectiveness of the academic advisement process as viewed by undergraduate and graduate students attending Coppin State College?

3. What was the degree of effectiveness of the academic advisement process as viewed by special education professors employed by Coppin State College?

4. What was the degree of effectiveness of the academic advisement process in the various programs in the Department of Special Education at Coppin State College?

In order to obtain the necessary statistical data, the four research questions derived from the problem statement were subdivided into eleven null hypotheses.

Methodology

The study, which was an attempt to identify the academic advising behaviors of special education professors and to determine the degree of effectiveness of the academic advisement process at Coppin State College, included 328 students majoring and minoring in special education. All twelve of the department's faculty members including the department chairman were involved in the study.

Data were collected in three ways. First, an observational method, known as Flanagan's Critical Incident Technique (1954) was utilized to identify the effective and ineffective academic advisement behaviors of special education professors. These behaviors as derived from the critical incidents were organized into a classification structure. Second, a modification of Holsti's (1969) content analysis research design for describing the characteristics of messages was used to compare the academic advising behaviors of special education professors as viewed by the three groups of respondents. Third, the results of the different communications produced by the above respondents were statistically treated using a chi-square analysis and a one-way analysis of variance.

Summary of Research Hypotheses Findings

This study also explored eleven null hypotheses specifically related to each of the four research questions listed above. The null hypotheses of this study were stated as follows:

H_1 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward special education career opportunities. *This hypothesis was accepted.*

H_2 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward the regulations, policies, and procedures related to receiving a degree in special education. *This hypothesis was rejected at the .05 level of significance.*

H_3 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward resources needed to advise students. *This hypothesis was rejected at the .05 level of significance.*

H_4 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward the recruitment of special education students. *This hypothesis was rejected at the .05 level of significance.*

H_5 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward the scheduling of advising sessions. *This hypothesis was rejected at the .05 level of significance.*

H_6 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward planning and scheduling with advisees. *This hypothesis was rejected at the .05 level of significance.*

H_7 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward procedures for implementing and monitoring advisee programs. *This hypothesis was accepted.*

H_8 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward interpersonal skills in communication. *This hypothesis was accepted.*

H_9 There will not be a significant difference between the perceptions of undergraduate students, graduate students, and special education professors toward interpersonal skills in problem solving. *This hypothesis was rejected at the .05 level of significance.*

H_{10} There will not be a significant difference between the perceptions of students receiving certification in (1) the undergraduate Mildly Handicapped (MH) program, (2) the undergraduate Moderately to Profoundly Handicapped (MPH) program, and (3) both toward the academic advisement behaviors of special education professors. *This hypothesis was accepted.*

H_{11} There will not be a significant difference between the perceptions of students receiving certification in (1) the graduate Diagnostic and Prescriptive Teaching of the mildly handicapped (DPT) program, (2) the graduate Severely and Profoundly Handicapped (SPH) program and (3) both toward the academic advisement behaviors of special education professors. *This hypothesis was accepted.*

Three of the nine null hypotheses that were derived from the research questions and related overall to the degree of effectiveness of the academic advisement process were accepted. There were not any significant differences in one subcategory of each of the three skill areas of academic advisement mentioned in the previous section of this study. The subcategories were:

T.1: Special education career opportunities.

T.7: Procedures for implementing and monitoring advisees programs, and

T.8: The utilization of interpersonal communication skills.

Two null hypotheses that were developed from the fourth research question related to the degree of effectiveness of the academic advisement process in the different special education programs were also accepted.

The results of the one-way analysis of variance for hypothesis 10 did not disclose any significant difference between the perceptions of students receiving certification in (1) the undergraduate Mildly Handicapped; (MH) program, (2) the undergraduate Moderately to Profoundly Handicapped program, and (3) both, towards the academic advisement behaviors of special education professors. This evidence as presented was true for each of the nine programmatic subcategories of the academic advisement process.

In addition, the results of the one-way analysis of variance for hypothesis 11 did not divulge any significant differences between the perceptions of students receiving certification in (1) the graduate Diagnostic and Prescriptive Teaching (DPT) program for the mildly handicapped, (2) the graduate Severely and Profoundly Handicapped (SPH) program and (3) both towards the academic advisement behaviors of special education professors. The breakdown of the data made obvious the lack of significant for each of the nine programmatic subcategories of the academic advisement process.

The remaining null hypotheses revealed significant differences in six of the nine behavioral process subcategories of the academic advisement process as defined in this research investigation. Each hypothesis was rejected. Moreover, the following description address each of these hypotheses in some detail.

For example, Hypothesis 2 related to regulations, policies, and procedures for advising students enrolled in special education curricular was significant at the .01 level. A review of the data seemed to manifest differences in the perceptions of special education professors, graduate and undergraduate students related to the effective execution of the academic advisement function in this area. The greatest variance in this area appeared to exist between the perceptions of the special education professors and the undergraduate students.

Hypothesis 3 related to the types of resources that were identified and described to students enrolled in special education curricula at Coppin State College. The types of resources characterized and denoted on the Likert Behavioral Scale included field experience sites, placement and study skill centers, outside resource persons in the area, and the location of relevant special education literature.

The essence of Hypothesis 4 was associated with special education professors performance behaviors related to responding to student inquiries regarding advanced study in special education.

Hypothesis 5 dealt with the scheduling of advising sessions. This subject included (a) the establishment of a system for making appointments with students, (b) posting office hours, (c) providing time for conducting advising sessions, and (d) controlling interruptions during advising sessions.

Hypothesis 6 which was related to planning and scheduling addressed the advisors' role in helping students to (a) select relevant career objectives, (b) relevant elective courses based on student needs, (c) identify the required courses to meet degree requirements, (d) analyze students previous training and experience and (e) to develop a program of studies to complete degree or certification requirements in special education. The frequency discrepancies associated with the real percentages for the agreement and strongly agree categories listed in Table 18 indicated smaller differences between the perceptions of the special education professors and the graduate students than between the perceptions of special education professors and the undergraduate students.

Hypothesis 9 constituted statements about interpersonal problem solving skills in the following areas of (a) resolving differences between advisees and advisors, (b) the maintenance of a demeanor that encourages students to discuss personal problems with advisors, (c) permit the expression of grievances, (d) suggest realistic solutions to student problems, and (e) the analysis of student problems objectively before providing advice.

The frequency discrepancies pertinent to the real percentages for the agreement and strongly agree categories displayed in Table 27 of the study disclosed smaller differences between the perceptions of the special education professors and the graduate students than between the special education professors and the undergraduate students.

Summary

A condensed summation of this data revealed the fact that six of the eleven null hypotheses were rejected at the .05 level of significance. Therefore, five of the eleven null hypotheses were accepted. These results indicated that there were not any significant differences between the perceptions of the undergraduate students, graduate students, and special education professors towards the academic advising behaviors cited in H_1, H_2, and H_3. In addition, there were not any significant differences between the perceptions of the undergraduate students and graduate students receiving certification in the four programmatic areas in the Department of Special Education towards the academic advising behaviors of special education professors for H_{10} and H_{11}.

These data tend to suggest that increased educational accountability is pertinent to everyone's need to obtain relevant information essential to determining the effectiveness of college professors academic advising and instructional behaviors. In too many instances, faculty members performing the academic advising functions were not aware of the implications or the positive or negative consequences of their actions. In order to respond to this challenge in a laudatory manner, many existing and future teacher training programs need to incorporate the findings of this study into their evaluation research designs.

The changing nature of higher education is requiring the nation's colleges and universities to face many new challenges as they enter the technotronic age of tomorrow. These institutions have the tremendous responsibility and extraordinary opportunity to effectively educate and train a new generation of the nation's leaders.

Recommendations for Improved Practice

The data made evident the need for programmatic and operational changes. They are:

1. The establishment of provisions for improving the coordination of the varying academic advisement functions within the four major programs in the Department of Special Education should immediately instituted.

2. The initiation of an in-service training program for all academic advisors within the Divisions of Education and Graduate Studies, as soon as it is feasible to do so.

3. Effectively enforce a policy which limits faculty teaching load and related responsibilities to make effective academic advising possible.

4. Establish an in-service training program for the special education professors responsible for performing the academic advisement functions within the Department of Special Education.

5. Provide opportunities for faculty members to link positive academic advising experiences with increased faculty development, academic excellence and productivity.

6. Provide a review of the results of this study for top-level college administrators. The recommendations from this study should be implemented at the departmental and divisional levels.

7. Establish a peer advising component to supplement the college-wide academic advising system.

8. Establish a mechanism that will provide students with an increased capacity to resolve academic advisement complaints.

9. Provide more opportunities for the Offices of Academic Advisement, Career Planning, and Placement, and the various departments to jointly sponsor seminars on new vocational and career possibilities, and changes.

Recommendations for Further Research

The data suggested the need for additional research into the academic advisement process. The areas are:

1. Additional efforts should be given to the development of experimental research designs for continued research into all areas of academic advisement process at the major research universities.

2. Additional investigations of the academic advising behaviors of special education professors should be conducted in colleges of comparable sizes.

3. A replication of this study with students and faculty members from other academic departments would provide data for comparing factors related to the improvement of the academic advisement process.

4. The development of advising instruments to more objectively evaluate the effectiveness of the advisement process should be conducted in small colleges.

5. The changing vocational and career needs of students indicate the need for more research in these areas of academic advisement.

6. Additional research related to the scope and nature of student satisfaction with the academic advising process should be considered for further study.

7. Additional reserach incorporating the most recent technological advances and their applications to the academic advisement process should be conducted at the major research universities and colleges of comparable sizes.

Appendix A

Table 18

Percentage of Agreement and Strongly Agree
Responses of Participants Relevant to the
Academic Advising Behaviors
of Special Education Professors
for Hypothesis 6

Questionnaire Items	Faculty	Graduate	Undergraduate Coppin (%)	Undergraduate Co-op (%)
16. Career goals	83	63	63	27
20. Elective courses	100	77	69	35
22. Required courses	100	81	77	69
23. Previous training	92	64	55	27
24. Program of studies	100	78	67	39

The differentiation of the data for the sixth hypothesis also disclosed smaller frequency discrepancies between the perceptions of the special education professors and the Coppin undergraduate students than between the perceptions of the special education professors and the cooperative undergraduate students.

Appendix B

Table 27

Percentages of Agreement and Strongly Agree Responses of Participants Relevant to the Academic Advising Behaviors of Special Education Professors for Hypothesis 9

Questionnaire			Undergraduate			
Items	Faculty	Graduate	Coppin	(%)	Co-op	(%)
34. Resolve differences	75	44		45		8
38. Maintain necessary demeanor	92	58		48		19
42. Permit grievance expression	92	80		72		62
43. Suggest solutions	100	75		68		35
44. Analyze problems	100	75		65		46

An investigation of the data for Hypothesis 9 uncovered smaller frequency discrepancies between the perceptions of the special education professors and the Coppin undergradute students than between the perceptions of the special education professors and the cooperative undergraduate students for questionnaire items numbers 34, 38, 42, 43, and 44.

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The Instructional Technology Specialist Computer Degree Program: An Interdisciplinary Approach for School Supervisors

PAUL HESTER

On July 1, 1985 the North Carolina State Department of Public Instruction issued a report on "Computer Education Competencies for Teacher Education Programs."[1] The report outlined a flexible model to be used by school systems and higher education instructions in providing training for teachers and other school personnel in instructional computing.[2] The writers of the document noted that:

> The advent of the microprocessor and the subsequent influx of microcomputers into the K-12 school setting are such recent phenomena that an overwhelming majority of K-12 educators lack training in computer education... Since educators have varying aptitudes, interests and abilities, the degree to which they can and will be prepared.... will vary. Three levels of competency have been identified:
>
> Level I -- Computer Competencies for all Educators
> Level II - Computer competencies and Utilization in Content Areas.
> Level III - Computer Specialization.[3]

Spurred by the above report the school of Education at North Carolina Central University recently proposed the following course of study for an interdisciplinary degree program in

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computer instruction. The curriculum outlined here focuses on the Level III -- Computer Specialization Program.

According to the SDPI, the Level III - Computer Specialization should have the following characteristics:

> The Instructional Technology Specialist -- Computers certification is appropriate for educators who, through advanced study and preparation, wish to develop extensive knowledge and skill in the broad area of computer technology and its application to the K-12 curriculum. The role of the computer specialist may vary from one of an educational leader who coordinates the overall computer technology program in a school system or a specific school to one who concentrates in a specific content area or a specific educational process.[4]

Out of this standard, the NCCU model took form.

The Proposed NCCU Approach to the Instructional Technology Specialist Curriculum

The educational goal of the degree program for certification as an Instructional Technology Specialist in Computers -- at NCCU -- is to develop school personnel with supervisory and administrative competencies to coordinate computer based instructional programs for a K-12 curriculum. In addition, the intent of the program is to assure the mastery of exportable computer based skills. Skills that will facilitate the development and enhancement of computer competencies for students, faculty, administrators and support staff, in a K-12 school district is the program aim.

The specific objective of the program is to develop personnel who can respond to the demands of the rapidly changing technological culture by applying their knowledge of: hardware, software, programming techniques, and information gathering skills as they apply to the the planning, organization, staffing, reporting, advising and evaluation of the K-12 curriculum.

The specific objectives of the program are actualized by students demonstrating the following expertise in completing the curriculum. They are abilities to:

> Use at least two computer languages to solve curriculum and management problems.
>
> Demonstrate the use of mainframes, micro-computers, and mini-computer in making more efficient and effective the management of school systems programs.
>
> Solve problems, using computer in K-12 curriculum matter as they relate to better supervision of instruction.
>
> Demonstrate the use of simulation models to depict the behavior of education systems and programs.
>
> Demonstrate the use of group dynamic and leadership skills to convey information via staff development programs.

The program will address the needs of the population by recruiting students for the program from various socio-economic groups who comply with the admission requirement of the University.[5] Likewise, effort will be made to attract a diverse student population from area institutions associated with business, political, social service, media, and educational agencies. Specific attention will be focused on a cross section of male and female students of different ethnic affiliations. Consideration and/or credit will be given to persons with exportable experience who demonstrate high skills in compliance with the educational objectives of the degree program track. The question that logically follows is: How will the curriculum address the following skills and tasks expected of a graduate of this program? This will be accomplished by organizing learning tasks around eight standards. These standards are:

1. Knowledge of computer technology, programming techniques and languages and their use as a tool in the K-12 curriculum.

By the Department of Education offering a sequence of integrated courses in collaboration with the departments of math, business, sociology, library science, etc., we expect to convey knowledge of computer technology, programming techniques and languages. The application of these skills to curriculum areas in K-12 education such as social studies, math, theater, psychology, art, archeology, music, literature and language, etc. will be the specific task of the Education Department, through a number of collateral courses dealing with the K-12 education curriculum. In addition, field experiences will be provided in LEA's to identify and resolve significant problems by use of computer skills, simulations and demonstrations.

2. Management of personnel, resources and facilities.

The management and control of personnel, resources and facilities are facilitated in the curriculum by having students master a number of "indexing systems" which can be used with "microcomputer" and mainframe databased systems. In addition, they will gain exposure to computer algorithms and programs for accessing data files and inventory control systems to increase their understanding of information management systems.

3. Evaluation and selection of appropriate computer hardware and software for instructional purposes.

A number of digest are available for the selection of courseware for computers. The Software Digest, Inc. publishes a document which includes topics on such areas as: spreadsheet graphics, word processing and database for IBM PC and Apple Computers.[8] In addition, they conduct surveys and test software packages. Some of the attributes used are: performance, cost value, flexability, utility, ease of use, ease of learning and error handling. Pre-purchase testing is another way to evaluate software. Conduit is also a vendor providing this service.[9] The selection of hardware is based on the following rules: purchase the computer yielding the most use for least cost; conversion estimates and projections from experts will also be used, compatibility and capacity are important.

4. An understanding of the organization and administration of a school system and the instructional specialist's role.

By integrating traditional administration courses in organizational behavior, role theory, bureaucratic theory, decision analysis, and systems management with an understanding of computer hardware and software the candidate will gain a synthesis with the instructional specialists role. This will be enhanced by a well grounded study of the history of administrative thought. Extending from the industrial revolution, to human relations, and participative management in education, special attention will be given to the input/output notions of functional system theory. Issues related to planning, organizing, coordinating and the division of labor will be studied. Also, focus will be given to the intent of the 6,3,3 organizational scheme, etc.

5. Design, implement and evaluate instructional programs using the computer as an on-going part of the entire instructional program.

. The design, implementation, and evaluation of instructional programs using the computer will be emphasized by using computer hardware and software to design matrix analysis schemes. The matrix approach will facilitate the identity of course content and objectives relevant to achieving the goals of instruction. Once goals and course content have been decided on and correlated, the computer will be used to more efficiently evaluate the effectiveness of teaching methods and school climate. More - the computer will be used to analyze the process - product approach to educational instruction and research. In addition, data will be stored and inventoried to gage the effectiveness of the curriculum.

6. Leadership skills

The program will provide the development of leadership skills by having students study theories and practices of leadership effectiveness. These theories will be analyzed by studying the literature and observing effective practitioners with strong leadership attributes. Specific emphasis will be given to understanding various leadership styles. The students will analyze the behavior of individuals characterized as autocratic, democratic and laissez faire in leadership behavior. Moreover, special attention will be given to the issues and empirical studies associated with "situational leadership." Span of control issues will be studied here along with issues in group dynamics.

7. Develop and implement staff development in instructional computers.

The curriculum will encourage the development of staff development skills. These skills will be honed to effectively convey the uses and functions of mainframe, micro, and minicomputers. The intent of the course is to give the candidate exposure to staff development strategies to facilitate the growth and development of personnel with demonstrative competencies in hardware/software manipulaiton. The candidate is expected to understand the use of performance measures to gage the impact of staff development intervention.

8. Develop commitment in the individual to the profession and continued learning to keep abreast of developments in the field.

This will be accomplished by encouraging the candidate to join and participate in professional association dedicated to conveying information and providing instruction. The student will be encouraged to submit papers and reports for state, local, and national presentation. The candidate will be assigned readings and collateral research projects to understand better the role of organization like the American Similation and Gaming Association. In addition to attending conferences, candidates will inventory the kind of meritorious awards given by computer companies and university foundations to spur greater interest in computer technology, etc.

The Program Track Differences

The new degree program track differs from other programs at the university in that it provides the basis for certification in supervision/administration and computer technology for a K-12 school district. It provides the unique combination of administration/supervision courses in a framework of information technology which emphasizes the public school curricula. The program is flexible in that it provides a number of enrichment experiences from business, math, sociology and library science. These experience are to be integrated into programatic and system's needs of the K-12 school system. Because of the significantly different thrust of this program, it is expected that the new degree program will enhance the program offerings in related areas. In order to be admitted to the Level III program students must have a B.S. degree and a level "G" certification as a teacher.

Strengthening The Existing Graduate Academic Programs and Projected Enrollment

Because computer technology and information based systems cuts across a number of educational program and cultural disciplines, the proposed program provides collateral skills which will strengthen research, information processing and analytical competencies in the total academic program.

1. Projected enrollment for four years, giving the basis for the projections.

The basis for the projected enrollment is taken from the Long-Range Planning Report for 1982-1987 published by the Board of Governors of the University of North Carolina (p. 42-49). The report notes that:

> "Three pools of persons are used in the current projections: 18-24 year olds, 25-35 years old, and persons older than 35. Past and projected values of these age groups are shown in the (excerpted) table listed below."[6]

Table I

ACTUAL AND PROJECTED POPULATIONS OF NORTH CAROLINIANS BY AGE
1976-1986

	Age Groups		
Year	18-24 Year Olds	25-35 Year Olds	Persons 36 and older
1976	767,410	923,097	2,232,661
1977	778,685	954,069	2,267,771
1978	788,903	983,948	2,301,193
1979	796,410	1,012,229	2,332,850
1980	806,039	1,050,130	2,364,493
1981	803,461	1,065,750	2,434,984
1982	801,743	1,087,651	2,487,204
1983	799,625	1,109,471	2,540,563
1984	797,640	1,131,632	2,594,742
1985	792,083	1,150,625	2,652,791
1986	775,735	1,160,192	2,722,557
Percent change:			
1986 vs. 1982	-3.2%	+6.7%	+9.2%
1986 vs. 1976	+1.1%	+25.7%	+21.9%

As Table I shows, the population of persons 18-24 years of age has increased only 1.1 percent over the past decade and is projected to decline by 3.2 percent over the current planning period. The largest decline is projected to occur in 1986. The population of persons 25-35 and those older than 35 are projected to increase by 6.7 and 9.2 percent, respectively, over the current planning period.

FIELD EXPERIENCES

The field experience will require one semester of course work in a local educational agency. Students will be required to enroll in a practicum course and log (200) hours of field experience under the supervision of the Department of Education. The candidate will be expected to work with a chief school administrator and be assigned responsibilities to enrich database knowledge and systems management capabilities. The LEA official may designate mainframe and micro-computer responsibilities deem requisite to the balanced development of knowledge in the use of hardware, courseware, and systems management.

APPENDICES

TABLE OF TENTATIVE COURSES

*BES. 3410 - Computer Organization

*BES 3420 - Business Programming I

BES 3430 - Business Programming II

*BES. 3440 - File and Data Base Management

*BES. 4600 - Systems Analysis and Design

BES. 4710 - Seminar in Information Systems

*BES. 5900 - Decision Analysis and Evaluation

*Math 4500/5500 - Concepts of Computer Assisted Instruction

Educ. 5100 - Psychological Foundations

Educ. 5110 - Human Growth and Development

Educ. 5140 - Mental Hygiene in Teaching

Educ. 5330 - Dynamics of Personal Behavior

Educ. 5400 - Social Foundations of Education

*Educ. 5910 - Introduction to Statistical Methods in Education

*Educ. 5920 - Procedures in Educational Research

*Educ. 5010 - Procedures in Educational Research

*Educ. 5010 - Basic Principles of Educational Administration

*Educ. 5020 - Supervision of Instruction

*Educ. 5030 - Elementary School Organization and Administration

Educ. 5040 - Secondary School Organization and Administration

Educ. 5050 - The School Administrator and School Law

Educ. 5060 - School Public Relations

Educ. 5080 - The Role of School Administrators in Curriculum Instruction and Supervision.

Educ. 5210 - Investigations and Trends in Teaching in the Elementary School

Educ. 5220 - Investigations and Trends in Teaching in the Elementary School.

Educ. 5530 or 5540 - Investigations and Trends in Teaching in the Secondary School

Educ. 5850 - Computer-Assisted Instruction for Education and the Social Sciences (also listed as Sociology 5850)

Educ. 5890 - Research Project (0-3 s.h.) or 5900 Thesis (3)

Educ. 5090 - Internship in School Supervision

Educ. 5800 - Production (Media)

Geog. 4020 - Computer Cartography

Library Science

*4220 - Selection and Use of Information Sources (3)

*4450 - Computer-Based Information Storage and Retrieval Systems (3 s.h.)

*4470 - Computer-Based Information Networks (3 s.h.)

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EVALUATION OF GEORGE MASON UNIVERSITY INSERVICE EDUCATION PROGRAM

Edward V. Jones and Tolula E. Mosier

During 1986, the George Mason University inservice education program collaborated with five Northern Virginia school divisions in conducting an extensive evaluation of its contract course offerings to public school teachers and administrators. This paper addresses several issues including the nature and purpose of the inservice program, the program's guiding principles, the nature of the inservice evaluation, sources of information, and selected findings.

Program Purpose and Description

The purpose of the GMU inservice education program is to provide credit professional development on a contract basis to the teaching and administrative staffs of Northern Virginia school divisions. At present, it facilitates the delivery of approximately 100 graduate courses which are collaboratively designed with area school divisions each year. Generally, these courses fall into the following categories:

1. G/T (35)
   Courses offered to teachers of gifted and talented students covering a variety of topics. Most of these are one credit courses.

2. Writing (38)
   Courses organized through the Northern Virginia Writing Project. Most are English/Education 695. All for 3 credits.

3. Computer (41)
   Courses dealing with computer and software applications for business and special education teachers and other more general audiences. Most for 3 credits.

4. Cert (13)
   Courses which were originated primarily to meet certification requirements. Most for 3 credits.

5. TESA (13)
   Two-credit courses in Teacher Expectations and Student Achievement, offered in conjunction with minority achievement emphasis.

6. Music (6)
   Most courses offered as part of summer ORFF program sponsored by one school division but also serving teachers from several others. Most for 3 credits.

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7. Selected One Credit Courses (5)
   Special topics courses which are primarily intended for beginning teachers.

8. Intact Schools (4)
   Three credit courses offered entirely or primarily to the staff of a single school.

9. Miscellaneous (50)
   All other courses offered in all school divisions and other agencies.

(Note: Number in parentheses indicates number of sections offered during the seven semester period covered by the evaluation questionnaires.)

Almost half of these courses have been provided to teachers and administrators in Fairfax County (VA) Public Schools, and the majority have been delivered through the GMU Department of Education. Overall, however, a total of 14 University departments and ten area school divisions (plus several additional public and private agencies) have been involved in the GMU inservice program since 1981. While most credit offerings are designed to follow relatively traditional schedules and organizational schemes (three hours per week for fifteen weeks, for example), the inservice program frequently explores and experiments with innovative formats.

The majority of GMU inservice contract courses are instructed by adjunct faculty who are employed by University departments on a part-time basis. The remainder are taught by regular GMU faculty as parts of their regular teaching assignments or as overloads. Virtually all of these courses are delivered off-campus at client-selected locations.

Guiding Principles

The collaborative nature of GMU-public school partnerships in inservice education increases the prospect that carefully planned inservice experiences will result in positive professional development for both school personnel and University faculty. Although the focus is properly on the former of these groups, the benefits to the latter should not be overlooked. Inservice courses provide opportunities to University departments and to individual faculty members to develop new courses and to teach in off-campus "real-world" environments which both strengthen the linkage between GMU and area schools and offer fresh perspectives for school-based research and other scholarly activities.

Through its inservice contract course program, GMU seeks to address specific school-identified needs within the context of University credit guidelines. Since a primary purpose of this evaluation is to assess the effectiveness of GMU's client-centered approach to inservice education, it is appropriate to review the organizing principles of this orientation:

1. The inservice contract course process originates in the school division. School personnel prepare proposals (or in some

cases request established University guidelines for credit courses designed to address specific needs). University and school personnel then collaborate in refining course designs, establishing course requirements, etc.

2. Inservice contract courses are conducted at sites designated by the school division. Most courses are offered in public school classrooms or other school facilities. Only a few, primarily those which require laboratories or other special equipment, are offered on the GMU campus.

3. Inservice contract courses are offered on dates and at times requested by the school division provided these schedules conform to University credit guidelines. Course schedules typically reflect 15 contact hours per credit hour and a minimum of one week's duration for each credit carried.

4. Inservice contract courses are presented to audiences selected entirely by the school division provided all participants meet the University's minimum requirements. No course participant who does not hold an undergraduate degree may earn graduate credit.

5. Most inservice courses are instructed by adjunct faculty members specifically requested by school staff and curriculum specialists. Many of these instructors are themselves public school staff members who are employed by the University as adjunct faculty.

An important emphasis in some inservice courses that is encouraged by the GMU inservice program is the effort to promote horizontal rather than vertical teaching and learning. In contrast to traditional course formats focusing on expert dispensers of knowledge, "horizontal" instructors function as learning facilitators by sharing with course participants the responsibility for "ownership of the problem." Such courses lend themselves readily to innovative organizational approaches and learning strategies such as, for example, peer coaching, action research, intact school programs, and systematic course follow-up.

The principle of shared responsibility is perhaps best reflected in the Writing and Learning courses associated with the Northern Virginia Writing Project. In these classes the instructor does student assignments and continually models learning behavior by participating with students in class activities. Also, much of the course content is presented by practicing teachers (serving as consultants) who are previous NVWP course participants. In these ways, the Writing Project courses exemplify teaching-learning principles for both K-12 students and adults that are frequently paid lip-service in the planning of staff development activities (and K-12 classes) but which are often disregarded in practice. In the words of one instructor, "It is easier to convey an experience than a philosophy."

In an effort to be responsive to the practical needs of its consumers and to explore new directions, the GMU inservice program often experiments with a variety of formats, frequently involving intensive one-credit courses. These include weekend classes (example: two Saturdays a month or so apart) and credit programs in conjunction with selected activities of short conferences and institutes such as the annual conference of the Northern Virginia Council for Gifted and Talented Education and the 1985 SAIL (Summer Adult Institute and Lyceum) Conference for Virginia public school adult educators. It should be stressed in this context, however, that GMU makes no effort to be infinitely flexible in its inservice offerings. Some worthwhile programs do not lend themselves easily to the University's credit framework and are more appropriately organized without GMU involvement. In such instances, the inservice coordinator does not hesitate to recommend that school divisions deliver programs themselves on a non-credit basis or, on occasion, that they consult other colleges and universities.

It is important both to the public image of the inservice program and to the program's self-image that it not be perceived primarily as a volume operation. In addition to providing courses, the program's purpose is to advance the state of knowledge about inservice education and teacher staff development and to communicate this intent. Toward this end, the inservice coordinator periodically distributes staff development articles, conference handouts, and other items of professional interest to contact persons in area school divisions. In addition, he is involved in various special projects and in ongoing research and evaluation efforts pertaining both to program impacts and to the state of the art in inservice education as a whole.

Nature of this Evaluation

The term evaluation means many things to many people. When this term is applied to an entity with as many facets as an inservice education program, the possibilities are almost limitless. As noted by Houle (1972), there is also a temptation on the part of evaluators to restrict their inquiry to those aspects of program performance (and demographics) which can be easily (usually numerically) measured and to assume that these factors adequately address overall program effectiveness. This approach has often characterized evaluations of colleges and universities, which typically abound with such quantitative measures as faculty-student ratios, number of volumes in the library, etc.

While the study described in this report includes a number of indirect measures designed to suggest inferences relating to program quality, these measures are not its primary focus. This evaluation was organized and implemented by GMU in collaboration with area school divisions in an effort to focus directly on the questions of greatest interest and relevance to the schools as well as to the University. Staff and curriculum development specialists from five school divisions participated in the design and distribution of course participant questionnaires which were returned to school offices before being collected by the GMU inservice education coordinator. In addition, school staff development specialists helped to organize the guest lists and topics for discussion at a series of small group lunch meetings (described later), where they and their designated guests raised issues of interest and concern relating both to particular GMU inservice programs and to teacher professional development as a whole.

Such extensive input from school divisions in both the design and implementation of this study is an appropriate and necessary feature in the evaluation of a client-centered program. The emphasis has been on understanding the inservice program's level of success in addressing teachers' staff development needs and on gaining insights about how the program's effectiveness might be improved in the future, as opposed simply to acquiring numerical ratings of its popularity among its consumers.

Although this evaluation reflects a traditional basic purpose (to gather data for decision making), it has blended qualitative methodology with statistical tabulations in a somewhat unconventional way. Its intent has been not only to gather information about the perceived effectiveness of the GMU inservice program by a variety of stakeholders and other interested parties (including teacher-participants, school staff and curriculum development specialists, adjunct instructors, and regular GMU faculty members) but also to understand the thinking and the values on which these perceptions are based. In this context, it meets the essential critieria for what Stake (1975) has called responsive evaluation and described as follows.:

> It is an approach that trades off some measurement precision in order to increase the usefulness of the findings to persons in and around the program...An educational evaluation is responsive evaluation if it orients more directly to program activities than to program intents; responds to audience requirements for information; and if the different value perspectives present are referred to in reporting the success and failure of the program (p.14).

In its focus on interpretation and understanding, in contrast to "scientific" inferences based on numerical data, and in its use of a variety of sources, this evaluation has been generally consistent with the philosophical underpinnings of naturalistic inquiry. It has not pursued questions of strictly theoretical interest but, on the contrary, to quote Guba and Lincoln (1981), "has taken its cues from those matters which local audiences find interesting and relevant"(p.38).

The inservice evaluation was undertaken with an open agenda in the sense that it was not limited to prearranged research questions or designed to test predetermined hypotheses, but constructed instead to be sensitive to the issues that emerged in the inquiry process. The emphasis has been on discovery rather than verification and on practical relevance rather than technical rigor. Furthermore, the investigators, as managers of the program evaluated, make no pretense of objectivity, nor have they manipulated subjects or variables in any manner which simulates the conditions of experimental research. With the exception of six numerical items on the instructor and participant questionnaires (all of which invite subjects to comment and elaborate on their ratings), they also have not restricted the nature and range of respondents' outputs.

The generally responsive and naturalistic framework of this evaluation represents a conscious choice on the part of the program managers/evaluators which is consistent with the study's intent. In seeking insight rather than precision of measurement (which, given the nature and scope of GMU inservice offerings, would have been virtually impossible in any case), the investigators were able to ask broader questions to more categories of stakeholders and to explore the underlying meanings of their responses in a manner calculated to facilitate better decision making for future programs. At the same time, the study has accumulated enough statistical data to add weight to the evaluators' subjective interpretations and to place these in meaningful perspective.

Sources of Information

The data analyzed in this evaluation were collected from the following sources:

1060 questionnaires (objective/subjective) distributed to 5 participants in each of 205 courses offered from fall 1983 to fall 1985 (670 returned).

217 questionnaries distributed to instructors of above courses (124 individuals) (93 questionnaires returned).

9 small group lunch meetings with key groups of school personnel during spring of 1986.

30 class visits and monitoring interviews during 1985-86.

Review of University records pertaining to participant grades, instructor evaluation data, and overlap pertaining to inservice courses and degree enrollment patterns.

Review of selected literature and conference proceedings.

4 follow-up lunch meetings with principals and with Northern Virginia Staff Development Council.

Nature of the Questionnaires

A variety of issues were explored through use of the questionnaire as reflected below. Course participants were asked to respond on forced choice Likert-type rating scales and then to add comments of explanation. The mean overall score and the total number of respondents are included following each item.

1. How successful do you feel that you were in accomplishing your objectives in taking this course?

SUCCESSFUL 5 4 3 2 1 UNSUCCESSFUL (Circle one)

Please comment: (Mean=4.38, Number 639)

2. In general, were you satisfied with the outcomes of the course?

SUCCESSFUL 5 4 3 2 1 UNSUCCESSFUL (Circle one)

Please explain: (Mean=4.32, Number=638)

3 How strongly did this course influence your teaching practices in your work with K-12 students?

STRONG INFLUENCE 5 4 3 2 1 WEAK INFLUENCE (Circle one)

What was the nature of this influence? (Mean=3.71, Number=600)

4. A familiar dilemma confronted in courses for practicing teachers is how best to balance the needs for theoretical background and hands-on practical applications. Did this issue create any problems or tensions between you and your instructor? Were your expectations compatible with those of your instructor?

COMPATIBLE 5 4 3 2 1 INCOMPATIBLE (Circle one)

Please explain your answer. (Mean=4.31, Number=625)

5. Another difficulty that sometimes occurs in an inservice course is that the instructor, the participants, and the course organizers (university and school division) have different ideas about its nature and purpose. Was this a problem with this course?

NO PROBLEM 5 4 3 2 1 SUBSTANTIAL PROBLEM (Circle one)

If there was a problem, please explain whose expectations were in conflict and what difficulties this caused? (Mean=4.37, Number=627)

6. How did the instruction in this course compare with that in other college/university courses you have taken?

FAVORABLE COMPARISON 5 4 3 2 1 UNFAVORABLE COMPARISON (Circle one)

Please comment: (Mean=4.28, Number=628)

The rating scales for instructors were parallel and virtually identical to the items on the course participant questionnaire and produced similar results. In addition to the above items, short discussion questions were asked to both course participants and instructors (examples: "What do you believe are the particular strengths of this course?" "What do you consider to be examples of innovative teaching in this course?") to elicit reactions which could not be appropriately addressed by rating scales. Responses to these questions were combined with the written comments provided under each of the first six questions above. The subjective portion of the questionnaires thus explained and amplified the answers given to the objective questions and contributed additional, often unsolicited, information pertaining to course outcomes.

Purpose of Additional Data Sources

Although it is evident from the mean ratings provided in response to the items listed above and to similar items presented on the instructor questionnaire that GMU inservice contract courses are generally well received, the intent of the evaluation was to seek additional information in order to gather broader perspectives on the ingredients of successful courses and the impact of the University's overall teacher staff development program. These insights were acquired from lunch meetings with key groups of school personnel; class visits and monitoring interviews with instructors; faculty questionnaires and interviews; an analysis of University records, and a review of the literature. While these sources echoed many of the findings derived from the instructor and participant questionnaires, they also provided new insights and perspectives, enlarging and enriching the focus of the evaluation.

Selected Findings and Challenges for Program Development

The evaluation reflects substantial enthusiasm and support for courses in which teacher participants learn from each other and also have opportunities to pursue issues and projects which relate directly to their own personal and professional interests. As stated earlier, this finding reinforces a trend already evident in the classes associated with the Northern Virginia Writing Project and a number of other successful programs. These courses have departed from the traditional "top-down" approach to staff development where the nature and content of inservice programs is dictated entirely by individuals other than instructors themselves. The designs of future courses should provide increasing opportunities for participant involvement in course planning, for collaborative student projects, and for teachers to use each other as learning resources. These peer relationships should occur not only at class meetings but in teachers' own classrooms, where individuals can engage in action research activities and serve each other as observers, coaches, teaching partners, and evaluators as they pursue course-related issues of individual interest.

Course participants in this study also expressed appreciation for classes which provided opportunities for practical application of course content within the context of a clear integration of theory and practice. For the most part, questionnaire respondents were not opposed to theory and conceptual framework, and recognized that a graduate course should provide more than a series of recipes and "how-to's" of teaching methodology. On the other hand, they were concerned and frustrated when a course offered them nothing they could use in their own classrooms or did not suggest clear relationships between the theory presented and its implications for work with K-12 students. Future courses should reflect attention to these concerns and include assignments which have maximum applicability for public school classrooms.

Another important ingredient in the success of inservice contract courses is compatibility of expectations. Are the course organizers (school and university inservice personnel), the participants, and the instructor on the same wave length about the purpose and intended outcomes of a class? What are the different expectations of individual course participants? Can these differences be accommodated or should some prospective class members be advised not to participate? These issues need to be carefully addressed in course planning, during recruitment of participants, and at the first class meeting. For the most part, according to the results of this study, the more general the subject matter addressed by a course and the more diversified the audience, the less successful that course is eventually rated by participants. Basic foundation courses offered on open enrollment to all staff members of an entire school division, for example, create wide divergences of expectations which are less easily satisfied than the more consistent (and more predictable) expectations usually associated with specialized classes for carefully targeted audiences. This matter should be carefully considered by school division staff and curriculum development specialists in the planning of future courses.

The most positively rated inservice contract courses addressed in this study tended to be those associated with larger programs or networks such as, for example, the Northern Virginia Writing Project, the TESA and Orff-Schulwerk music programs, and the one-credit gifted and talented courses. Classes associated with such networks are judged more effective than isolated courses, in part, perhaps, because they lend themselves to clearer expectations (since their reputations precede them and also because the nature of their curricula are more firmly established). They also profit from stronger support systems for both instructors and participants, which often contribute to better instruction and to more productive teaching-learning environments.

Another category of successful inservice courses, as indicated by this evaluation, is intact school programs, classes offered primarily to the faculty of a single school. These courses benefit from strong support systems and shared expectations under circumstances where faculty and school administrators help and encourage each other in a common effort to effect change through implementation of course content. Intact programs also lend themselves to follow-up activities which improve program effectiveness and to impact evaluations which investigate the specific outcomes of particular classes. The challenge for the future is to encourage the development of more intact courses which, at present, exist only in small numbers.

Concerns raised by evaluation questionnaire respondents and lunch meeting guests included grouping of course participants, occasionally excessive and "busy work" course requirements, and instructors' lack of attentiveness to school division curriculum requirements and other constraints. Although none of these issues were raised by a large number of evaluation participants, they do suggest matters that both University and school division personnel should keep in mind in the development of future programs.

Questionnaires and interviews with the GMU Education faculty revealed that a prevailing attitude of many (not all) faculty is that teaching inservice courses is not recognized by the University reward system and is not worth the overload salary offered for the sacrifice of time taken from other activities. More needs to be done to promote the potentials of faculty contract course involvements to sharpen teaching skills through first-hand contact with experienced public school educators, to open new possibilities for research and scholarship, to recruit students for campus programs, and to create contacts and consulting opportunities for individual professors.

Concluding Comments:

The open-ended nature of the evaluation yielded unanticipated benefits. Many participants and instructors, for example, made a special effort to write specific suggestions and to report at length on positive experiences. Also, the meetings with administrators and teachers, in addition to contributing new ideas and perspectives on staff development, provided a convenient forum for the discussion of mutual expectations and concerns.

Overall, this evaluation has affirmed the general success of the GMU inservice program, indicated areas that need improvement, increased communication and understanding between the University and the schools, and suggested new approaches to staff development that will stimulate and give direction to future GMU/public school activities in teacher staff development.

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(Note: This paper is a condensed version of an extensive evaluation report which is available upon request.)

DESIGNING FOR CHANGE: APPLYING THE STRENGTHS OF AN INTERDISCIPLINARY CURRICULUM TO THE PREPARATION OF SCHOOL ADMINISTRATORS

L. ARTHUR SAFER[1]

The purpose of this essay is to encourage the design and implementation of an interdisciplinary academic approach for the preparation of school administrators. The ferment of educational reform over the past three years has underscored a number of fundamental questions. Among these are:

1. How can we regain a commitment to high standards?
2. How can we attract the most talented in our society to choose educational careers?
3. How can we restore public confidence and faith in our schools?
4. How can we construct a curriculum relevant to the changing social and economic conditions of the nation?
5. How can we make sound educational policy that best serves the needs of the educational consumer and the society as a whole?
6. How can we best educate the children in our urban centers in schools that have increasingly come to be viewed as factories for failure?

The development of an interdisciplinary curriculum can serve both as a response to these questions and as an opportunity to advance the field. Many graduate programs in educational administration currently operate within a closed framework from which the practices of school administration are viewed as unrelated to the general societal context in which they exist. Such programs are limited in scope, intellectually unchallenging, substantively shallow and often too focussed on the "mechanics" of school administration. Few of these programs seek to integrate the social, behavioral, and management sciences into their required curriculum. Often classes in these programs seem to fall into two extremes: excessive theory taught by individuals having no practical experience in the elementary and secondary classroom and/or practitioners instructing through anecdotal "war stories" in courses with little

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substantive base. This absence of breadth and substance stifles the development of the skills required by school administrators to understand and cope with the economic, social, legal, ethical, cultural, political and organizational aspects of today's complex urban, suburban and rural social systems.

The current problem of unidimensional programs training school administrators for leadership roles in a multidimensional society requires the consideration of the interdisciplinary approach. This is not a new revelation but one which finds support in earlier writings regarding the impact of a changing public domain upon the role of the school administrator. In fact, it is difficult to distinguish between the perceptions of the changing ethics, values, cultures, and realities of a pluralistic nation which confronted superintendents and principals in the 1950's, 60's and 70's and the changing values evident today (Campbell, 1977; Watson, 1977). Derek Bok (1986) has assessed the societal problems surrounding today's schools as building on the problems of the past. He concluded that:

> Today, most issues seem rooted in murky questions of motivation, incentives, values, culture. Improving the nation's health depends on persuading people to alter their personal habits as much as on discovering cures for diseases. Combating poverty and chronic unemployment is not simply a matter of transferring money from rich to poor nor even of creating jobs; it requires an understanding of the culture of deprivation with its baffling array of disincentives and inhibitions. Providing housing for the poor no longer seems like a simple question of appropriating money to build public housing; it is haunted by the discouraging and puzzling fact that the expensive projects of 1960's turned quickly into uninhabitable ghettos. Improving educational quality in the public schools requires a greater understanding of how children learn and why so many lack the motivation to study rather than a simple calculation of the cost of raising teachers' salaries and supplying new equipment. (p.139)

Based on this history of the complex issues confronting schools, the question is whether the curriculum in current educational administration programs is consistent with and reflective of the competencies, skills and knowledge base required of present and future educational leaders. The answer to this question is the same one given fifteen to twenty years ago: No.

Over the years, considerable attention has been focussed on identifying and synthesizing what characterizes the field of study called educational adminstration and its applicability to the preparation of school administrators. This field of study has been associated with the theoretical constructs of the scientific management movement, human relations movement, social, and behavioral sciences, and humanities movements. This diversity of thinking has led to academic training programs which have ranged from multidisciplinary, interdisciplinary, training-in-common, generic graduate schools of administration, centers for the study of administration, and common core curriculum at the graduate level (Miklos, 1972; Campbell, 1977; Snyder, 1969; Griffiths, 1969; Farquhar, 1977). All have been debated, manipulated and critiqued through the literature and in conference settings; the most prominent beginning in 1954 with the National Conference of Professors of Educational Administration and continuing with the 1975 UCEA/Ohio State Conference entitled Educational Administration Twenty-Years Later 1954-1974. The purpose of the 1975 conference was to assess developments in the knowledge and practice of educational administration and seek "direction for research, leadership and preparation of educational administrators in the years ahead," (Cunningham, 1977). It would be unrealistic to not acknowledge that we have benefited from the debate which has centered upon the theory and application of educational administration, but as Miklos (1983) concluded,

> ...it is much easier to document what the beliefs about preparation have been over a period of time than it is to describe actual practice. (p. 154).

Bernard Watson in his examination of the issues facing educational administrators between 1954 and 1974 lamented that in the context of a rapidly changing world when emerging problems demanded visionary educational leadership, training programs were still placing the heaviest accent on administrative and maintenance functions. Procedures regarding recruitment and training had been affected by the passing of two decades, but the training received by administrators was still in the stage of the Model T (Watson, 1977). Although, this conclusion appears frequently as one reviews the literature and evaluates university training programs, we still have not systematically, cognitively or effectively altered the approach to the education of school administrators. Curriculum emphasis remains tied to building management, supervision, school law, school finance, facilities and transportation. (Hoyle, 1985; Cawelti, 1981 and Pitner, 1982, as cited in Hoyle, 1985; Hoyle, 1981; Miklos, 1983; Ourth, 1979).

The signal is clear; it is time to go beyond the rhetoric, determine an appropriate course of action and then implement it (Hoyle, 1985; Palmer, 1985; Scribner, 1985). This may not be an easy task as bluntly described by Peterson and Finn (1985):

> It may well be that piecemeal reform is simply inadequate to the task of overhauling the training, licensure, and professional standards of school administrators. It may also be that the profession lacks the fortitude or the perspective for a thoroughgoing, self-induced overhaul. Perhaps governors, business leaders, and blue ribbon commissions will need to bring school administration under the kind of intense scrutiny that they have applied to school teaching. Maybe one state needs to burst from the pack with a radically different model of training, licensure, selection, evaluation, and recruitment into this field. Perhaps the universities need a modern day Flexner to map their route through a system-wide - reformulation of precepts and practices of administrator training. Certainly, the stakes are high. The educational status quo, though comfortable, is unsatisfactory. (p. 60)

The timeliness of this prediction is reflected in the recent report of the National Commission on Excellence in Educational Administration which stated that at least 300 of the nation's 500 college and university educational administration programs were inadequate and should be closed. The Commission issued the strong warning that unless the quality of school officials improved, the reform movement in public schools could become "a revolution that dies for lack of leadership," (Evangelauf, 1987).

It is clear from the urgency with which this concern for action is currently being voiced and the fact that similar concerns have been raised for the last 30 years, that the time has come for the development and implementation of a plan of action. It is proposed that the most useful and workable plan draw from an interdisciplinary prospective. The interdisciplinary approach seems particularly appropriate since it will not diminish the unique nature of the field of educational administration but will permit the research, theory and practice of other disciplines to enrich these programs. This approach does not relinquish the preparation of school administrators exclusively to the scholars and practitioners in the social, behavioral and management sciences, but rather requires a balanced interplay and exchange between the specialists of other disciplines and educational specialists.

One existing and apparently successful model available for consideration is that of the professional schools of public administration. The design of their curriculum links an interdisciplinary application of research and theory to the leadership skills required of managers to function in the public domain. The thrust of most public administration programs today emphasizes the "art" of public administration and generally places less significance upon the "science," or mechanics, of public administration (Kerrigan & Hinton, 1980).

A case in point is the interdisciplinary program of study at Harvard University's John F. Kennedy School of Government. As described in the program catalog, the mission of the school is not to produce a distinct type of specialist but rather to give its degree candidates an opportunity to acquire the combination of advanced skills most useful to them in dealing with problems of the broadest interest and at the highest level of government responsibility. In emphasizing the art of public administration this program attempts to create a deeper understanding of the major substantive issues of public choice through sustained problem solving research that mobilizes the intellectual resources of the entire University. Specifically, the Kennedy School adheres to the belief that:

> The policy issues and managerial problems encountered in the public sector are complex, defying one-dimensional solutions. They cannot be readily classified as solely legal, economic, political, or administrative in nature, they combine these elements and more. Consequently, they are best addressed by professionals with training in many disciplines who can bring these combined skills to bear when formulating solutions. (p. 10)

This commitment is exemplified in the School's Two Year and Mid-Career Master of Public Administration programs which are designed for individuals who require a more flexible and open-ended curriculum to enhance their career development. The program of study is entirely elective and courses may be selected from within the Kennedy School, at all of Harvard's graduate and professional schools and at Tufts University's Fletcher School of Law and Diplomacy. This academic breadth provides graduates with the skills to be responsive, visionary and creative leaders.

The public administration model and other interdisciplinary models provide a rich resource for developing a plan of action in redefining and restructuring how universities prepare school administrators. Certainly the implementation of an innovative training model, particularly one cutting across discipline lines, will be confronted with obstacles including certification and licensing complications, organizational barriers, institutional resistance and inertia, preservation of academic discipline boundaries, questions of transferability, and financial costs and risks associated with reorganization (Miklos, 1972; Bok, 1986; Snyder, 1977). To acknowledge these obstacles is necessary but at the same time they cannot be permitted to let history repeat itself by stifling advancement in the field.

It is imperative that educational administrators understand their role in the larger community and acquire the skills to effectively identify, define and analyze the political, social, cultural and ethical elements which have significant influences on and in the educational process. To accomplish this goal, schools and colleges of education must concentrate on developing educational leaders acutely attuned to the pulse of a complex and changing society. It appears that school leaders already recognize the problems facing them. In the 1982 AASA survey of school superintendents, only twenty-one percent identified the quality of educational administration courses as a major strength, a drop from 57% reported in 1971. As for major weaknesses in their graduate studies the most frequently cited were poor or irrelevant course offerings in general, shortcomings in, or lack of, specific classes and the poor quality of specific educational administration courses (Sonedecker, 1982).

In developing programs to circumvent these weaknesses, the interdisciplinary approach seems particularly favorable. School administrators must be able to draw on a rich, varied body of theory and research to become the creative problem solvers today's society requires while maintaining their ability to manage the complex bureaucracies of our schools.

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Support Mechanisms for Part-Time Faculty at the School of Visual Arts: A Case Study

Mark Salmon

I am going to use the occasion of this fifth annual National Conference on Non-Traditional/Interdisciplinary Programs to share with you a discussion of some problems that have become a vexing and perhaps permanent part of the academic scene. The problems I am referring to concern those related to part-time faculty. I will not spend time in this part of the presentation describing the problems and prospects of these academic nomads. You are probably already familiar with the issues they face. At a minimum you know these hapless creatures exist. Let me describe a cartoon posted on the bulletin board of the department where I work. I think it sums up the situation. Picture, if you will, two adjacent entrances to an ivy-covered building on a college campus. Through an ornate entrance marked "tenured Faculty," stride individuals with erect posture and confident gait; through the other entrance, plain and unimposing, amble a stoop-shouldered and beleaguered looking crew. The sign above the door signifies their lot in life: "Nontenured Faculty, Lecturers and the like."

There they are, "the like," the academic lumpen proletariat, the bottom of the heap. A quote from a recent issue of the *Chronicle of Higher Education* (January 28, 1987) exemplifies the point: "As a part-time teacher at the University of Southern Maine, Sandra Stacki was surprised to find she couldn't take a sauna in the Campus Gym, couldn't use the campus health center, and had to sign a special form to take out a library book. She hadn't been given an I.D."

This paper will discuss some of the problems that face a particular body of part-time faculty in a nontraditional and interdisciplinary educational institution and the efforts on the part of that institution to ameliorate the conditions of their employment. I will argue that the nature of the institution serves to promote the interests of the institution, the students and a particular group of adjunct instructors. But I will also argue that an unintended consequences of the adjunct system in question has been a bifurcation of the part-time faculty body that serves the employment interests of

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one group more than the other. The support mechanisms for faculty I will discuss are, in part, an effort to redress this disparity. I will be narrative for the most part because I want to focus on real problems and solutions in a specific setting. The perspective I will employ is that of an academic administrator.

The School

The institution in question is the School of Visual Arts. Located in New York City, SVA is a post-secondary degree granting educational institution, authorized by the New York State Board of Regents, accredited by the Middle States Association of Colleges and Secondary Schools and is an accredited member of the National Association of Schools of Art and Design (NASAD). SVA offers a Bachelor of Fine Arts in Art Education, Communication Arts, Film, Fine Arts, Media Studies and Photography and a Master of Fine Arts in Fine Art, Illustration and Computer Art. The school draws students from 35 states and 32 foreign countries. Its 2,107 full-time and over 4,000 continuing education students make SVA "the largest college of art in the country" (NASAD Evaluation Report, 1986).

The School of Visual Arts is non-traditional in three ways. First, it functions as a career-oriented institution for professional training. Graduating students not only learn the technical aspects of their particular field but have gone through a process of socialization which includes the acquisition of an identity as a artist, a sense of professional ethics and the rudimentary skills necessary to take on entry-level role responsibilities in institutional settings. Graduates apply for jobs in a specific job market. While the kinds of occupations they have are quite diverse, the following list of jobs held by students who have graduated in the last five year suggests the range of possibilities: associate art director for a national men's magazine: staff photographer for a national news magazine, art director for a newspaper, assistant art director for an advertising agency, associate designer for a teen magazine, free-lance cartoonist and illustrator, creative arts therapist in a public school system, fine artist showing in New York City galleries.

Second, to the extent that its various departments exist independent of one another, SVA functions more as a small university than a college. On an administrative level, this is reflected in the relatively high degree of autonomy given to each department, with chairpersons having considerable leeway in shaping their programs. On an educational level, once students enter their sophomore and junior years, they are well on their way to a technical training that takes on the character of occupational division of labor. By the time they enter their fourth year, students are deeply involved in senior projects that make maximum demands on their time, technical skills and professional networking. As a result, they become physically isolated in their studio or department's technical equipment, and socially isolated in an occupationally circumscribed set of professional relationships.

Third, SVA is unique ~~in~~ that apart from department chairpersons, all of the faculty are part-time. There are undoubtedly some art instructors who would like the benefits of full-time teaching employment, but most of the faculty are busy art professionals who do not want to restrict themselves to the classroom. They work as illustrators, fine artists, photographers, film makers, designers, etc. They have shows and exhibits in major museums and galleries. They work in the largest ad agencies and publishing firms and have lucrative free-lance practices. In large part, because of the prominence of its faculty and the success of its graduates, SVA enjoys an outstanding reputation on a local, national and international level.

These three non-traditional elements work to the advantage of most of the parties involved in the career orientation of the school. The adjunct faculty system serves the administration because it keeps salary costs lower than they would otherwise be, it serves the art instructors to the extent that a limited teaching schedule enables them to pursue their careers in the art world, and finally, it serves students by involving them with professionals who are actively involved in the latest occupational trends and professional networks.

The Department

The part-time faculty I am concerned with there, however, are those who teach in the Humanities and Sciences Department. In order to understand their situation, it is necessary to discuss the nature of the department and the role it plays in the school as a whole.

The department is administered by three chairpersons, each with responsibilities for a set of academic areas. One of the chairpersons coordinates the larger administrative activities of the department. The result is the integration of the department into a rather large semi-autonomous unit. The department chairpersons report to the president of the school. There are no committees per se within the department

Humanities and Sciences functions as a "service department" in so far as it is organized to provide undergraduate students with the 32 humanities-and-sciences credits they must accumulate in order to graduate with a baccalaureate degree. Though students do not "major" in any of the department's academic areas, the curriculum is both broad and deep. Each semester, the department offers approximately 130 courses in literature, writing, drama, theater, music, philosophy, women's studies, history, economics, political science, anthropology, sociology, psychology, mathemetics and an array of natural sciences courses including physics, astronomy, evolution, holography and the like. The department also offers a range of computer courses. While students are free to take those courses that are of interest to them, they must take one literature, one history and one natural sciences course.

The department is both interdisciplinary and non-traditional. It is interdisciplinary to the extent that the department with all of its diversity constitutes a single academic entity. While this is true for all administrative aspects of the department, it is especially true with regard to curriculum planning. A course will be added or deleted, in part, with an eye toward the role it plays in the context of the total course listing. On an individual level, however, the courses are designed and taught in a conventional manner.

The department is non-traditional in the three ways alluded to above: it does not provide a "major" area of concentrated study, it functions as a "service department" and, like the school as a whole, it is composed of an all-adjunct faculty. These three non-traditional aspects of the department work together to create a problem not typically faced even by part-time instructors in more traditional settings. Many instructors feel that Humanities and Sciences, as a "service department," is a stepchild of the school. The fact that the School of Visual Arts would not be a college without the Humanities and Sciences department does not seem to balance out against the implicit prestige of those art departments that serve what is referred to in organizational literature as "line" as opposed to "staff" functions. All of this has resulted in a morale problem among some instructors who already feel somewhat disconnected from the academic mainstream by virtue of being adjunct faculty.

The Faculty

Just as in the case of the school as a whole, all of the faculty in the Humanities and Sciences Department are part-time. They are, however, fairly stable as a faculty body. Of the 81 instructors in the department, approximately 6% have taught 15 years or more, 73% have taught 10 years or more, and 91% have taught at least 5 years or more. Compared with a national sample of adjunct instructors, our faculty members are professionally active and have impressive credentials and accomplishments. Comparative figures are presented in Table 1.

Table 1. Comparative characteristics of part-time faculty.

	In Humanities & Sciences at SVA	In Higher Education[a]
Percent with Ph.D.	35.5	19.7
Percent with J.D.	3.9	NA
Percent with M.A.	56.6	49.7
Percent female	38.1	38.7
Percent black	5.3	3.1
Percent who have published an article	46.2	19.5
Average number of articles	3.4	1.1
Percent who have published a book	25.0	NA
Average number of books	2.4	NA
Percent who have published plays or poems	12.5	NA
Average number of plays or poems	5.5	NA

[a] SOURCE: Tuckman *et al.*, 1978a, p. 24, in Bowmen and Schuster, 1986, p. 64.

While our faculty members are atypical to some extent, they do share some basic problems with part-time instructors at other institutions. As other writers have indicated (Bowmen and Schuster, 1986; Heller, 1987; Leslie, Kellmans and Gunne, 1982) generalizing about the problems of part-time faculty is difficult because of differences in their stages of career development, the diversity of employment needs and the variety of reasons for teaching on a part-time basis. While some of that divesity is reflected in Humanities and Sciences faculty, approximately 74% of Humanities and Sciences instructors are working under conditions of full-time patchwork employment as teachers. For these instructors, problems can range from lack of collegial support to low income and absence of other employment benefits to general feelings of organizational estrangement.

Department Support of Adjunct Faculty

While we have not found any solutions to the larger problems and issues of adjunct faculty, we have made some efforts to make life a bit better for instructors in our department. Let me describe some of them to you.

1. *Instructional Support*. Many if not most schools make a variety of films and videos available to instuctors. We do the same, but we also provide other kinds of individualized classroom support. We ask each instructor to submit a budget request for three things: film and video, instructional equipment and paid guest lecturers. The opportunity to invite paid guest lectures is particularly attractive to our instructors and they take frequent advantage of it. It enlivens the classroom with interesting and informative experts from a number of fields.

2. *Instructor Evaluation of Students*. Since the 1960's instructors have come to accept if not necessarily relish student evaluations. While we also have student evaluation of instructors, we give our instructors the opportunity to evaluate their students on a level that goes beyond the private and somewhat bureaucratic grading process. We ask instructors about their impressions of students' general academic ability, the extent to which they complete reading and writing assignments, their level of classroom participation, and the extent to which they come to class on time. This group-level grading system serves a number of functions. First, it enables instructors to assess the extent to which their overall impression of students is consistent with the range of grades they actually give in their courses. This serves as a check against grade inflation. Second, since summaries of instructor evaluations of students are made available to all department faculty, it enables each instructor to see his or her evaluation of students in a comparative context. Third, and more to the present point, it suggests to instructors that their evaluations of students matter on something other than a purely routine bureaucratic level.

3. *Instructor Self-Assessment.* In addition to student evaluations of instructors, each instructor is observed in the classroom by a department chairperson. This, I think, is typical of the extent of the evaluation of instructors at most schools. But how often are instructors asked to evaluate themselves? We have developed a form that asks instructors to do just that. The purpose of the exercise is to provide an opportunity for instructors to be self-reflexive with regard to a particular set of classroom dynamics rather than to construct an alternative interpretation their performance as instructors. Instructors seem to appreciate the opportunity to reflect and speak candidly about the following kinds of issues: the extent to which actual grades reflect overall impressions of student ability, the extent to which classes meet the expectations and abilities of students, the number of pages of reading material assigned, the nature and quality of writing assignments given, the extent to which instructors feel the need to adjust the level at which they teach in order to accommodate the abilities of students, and the extent to which instructors feel the need to adjust the amount of work they assign to students because of the work load students have in their art courses.

4. *Sabbatical and Leave-of-absence.* Instructors may request an official leave-of-absence. We do not have any official time guidelines in this regard but requests of up to two years have been made and honored. This provides instructors with some personal and professional flexibility. More importantly, and much more often used, is our sabbatical system. An instructor who has taught at SVA seven years or more may request a sabbatical for one year at half-pay or one semester at full-pay. This is an extremely attractive benefit to instructors taken as a whole because about 80% of our faculty have taught at SVA for at least seven years.

5. *Financial Compensation for Professional Presentations.* Instructors who appear on the program of a professional meeting, conference or other activity may request up to three hundred dollars compensation for their food, travel and accommodations. That is an attractive benefit for anyone but especially for part-time instructors many of whom have limited incomes.

6. *New Course Development.* Instructors may propose new courses that may become a permanent part of the curriculum or that are offered on a rotating basis. The advantage is that each instructor can put a personal stamp on the curriculum by offering courses that are his or her own creation. The advantage to the department and students is that the curriculum is kept fresh, current and infused instructor enthusiasm. There is an important stability to our curriculum, however, as a result of the presence of required courses as well as those courses that instructors choose not to change.

7. *Department Party.* Each Christmas, the Humanities and Sciences Department hosts a faculty party. These are catered affairs with

a nice assortment of wine, cheese, hors d'oeurves, etc. The parties are well attended and they seem to be something people enjoy at great deal. They give instructors who do not necessarily have much contact with one another an opportunity to mingle.

8. ***Faculty Newsletter.*** **Another opportunity for instructors to stay in touch with one another is through our Humanities and Sciences Faculty Newsletter. It is published three times a year and includes news tidbits of professional and personal interest.** For example, in our last newsletter, department members learned that Mike Levandowsky has received a three-year grant of $75,610 from the Whitehall Foundation to study chemical senses in single-celled marine organisms, that Isaac Kerlow has just published a textbook entitled *Computer Graphics for Artists and Designers*, and that a new play by Joan Schenkar, has recently opened at the Minnesota Opera Co.

The department also provides instructors with office space and mailboxes. In addition, all instructors in the school are eligible to participate in a Blue Cross health insurance plan and a retirement annuity program.

Discussion

How well or badly off people think they are is to a large extent a consequence of their experience of relative deprivation. People get a sense of how they are doing by comparing themselves to others. A Humanities and Sciences instructor has four potential comparative reference groups: other part-time Humanities and Sciences faculty, part-time art faculty at SVA, part-time faculty at other institutions and full-time faculty at other institutions. While I have no hard data on the matter, my impression, based on four years of close contact with Humanities and Sciences faculty as Chairperson of the Social Sciences Department, is that there are potential feelings of parity among our faculty with regard to other Humanities and Sciences instructors, potential feelings of advantage with regard to part-time instructors at other institutions, and potential feelings of disadvantage with regard to part-time art faculty at SVA as well as full-time faculty at other institutions.

The feelings of disadvantage on the part of Humanities and Sciences faculty with regard to the SVA art instructors are not a consequence of any tangible differences between the two groups in terms of institutionalized conditions of employment. In addition, there are certainly some Humanities and Science instructors who are more successful in their professional lives than some art instructors. Nonetheless, there is a generally shared perception that SVA art instructors are rather successful on a professional level. At the annual school-wide faculty meeting were achievements and awards are announced, through the efforts of the school's public relations office to promote the school as an art institution, and as a result of the prominent role of fine and commercial art in New York City, Humanities and Sciences instructors develop a clear sense of the importance of art and the prominence of art instructors at SVA.

Similarly, instructors are aware of the prominence, prestige and employment benefits accorded to full-time employment at the numerous institutions of higher education in New York City. When instructors see the cartoon I described at the beginning of this paper, they understand exactly what it means.

While instructors may feel at a disadvantage in relationship to art instructors and full-time faculty, they feel a greater sense of equity when it comes to department colleagues. With the exception of the length-of-service requirement for sabbatical, all of the other benefits of employment in the department are equally shared. While there may be differences between instructors with regard to the number of courses they teach, those differences occur on an individual basis only. To my knowledge, there is no perception of institutionalized inequality, either implicit or explicit, within the department.

In comparison to the institutionalized role of adjunct instructors at other institutions, our instructors are clearly better off. I am familiar with the conditions of adjunct employment in two schools in the city university system, a major university in New York and a school in the state university system in New Jersery. Apart from economic-package benefits, most if not all of the benefits provided to Humanities and Sciences instructors are unavailable to part-time instructors at other institutions.

Conclusion

To a significant extent, the kinds of support provided by the Humanities and Sciences Department are of value to our instructors. Taken as a whole, these support efforts are helpful to instructors in terms of economic benefits (financial compensation for professional presentations), didactic support (classroom instructional support; instructor evaluation of students; instructor self-assessment; new course development), collegial relations (Christmas party, faculty newsletter) and professional development (new course development; sabbatical and leave-of-absence; financial compensation for professional presentations).

These kinds of support, however, are also of value to the Humanities and Sciences Department and the School of Visual Arts. From a short-term perspective, we are concerned about how the conditions of employment for part-time instructors may effect their level of motivation and commitment to quality teaching. There have been nation-wide concerns expressed recently about the overall quality of teaching in general in higher education, and there is no reason to think that those concerns apply less to part-time than full-time faculty. We are hopeful that the kinds of support mechanisms I have discussed will integrate our part-time faculty and heighten their sense of organizational involvement. From a long-term perspective, we are concerned about the ability of the Humanities and Sciences Department to continue to attract good instructors in the face of what some believe is a gradually improving academic job market. In order to remain competitive in the future, we must continue to improve employment condition ~~for~~ our faculty.

Finally, while the efforts to address some of the problems of adjunct faculty are perhaps unique to the School of Visual Arts, I would argue that some of these are suitable for adoption elsewhere. This is especially true since several of the ideas outlined here can put put into place at relatively minimal cost. What they require is an expenditure of interest and effort.

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BROADENING THE PROFESSIONAL DEVELOPMENTAL ALTERNATIVES FOR COLLEGE TEACHERS:
Theory and Practice of Dynamic Pedagogy

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Teacher education programs, in my view, face an unyielding complex challenge: how to produce pedagogically skilled graduates who are not only soundly based in a given content area, but who are also the kind of well-rounded, generally well-educated individuals one would like to see teaching in public and private schools and other institutions of learning. This is not a rhetorical question. The expansion of knowledge in all categories and disciplines experiences an ever increasing acceleration. Unfortunately, the time alloted to academic programs of whatever ilk to achieve their objectives remains relatively static.

These objective conditions, then, create a classic dialectic. The expansion of knowledge (*thesis*) is an immutable phenomenon, however, the time-on-task allotment to transfer this knowledge in classrooms and to complete program or degree requirements (*antithesis*) suffers under the bureaucratic constraints of tradition and competitive costs of academic degrees in terms of time and money.

This paper sets out to examine some of the practical alternatives to this Hegelian dialectic and to propose directions and strategies to be pursued in order to realize a practical and effective *synthesis*. This effort is also viewed by the author as a response--one can only hope of some value--to the harmonic tremors associated with an emergent holistic critique of the American educational establishment *in toto*.

The basic question, as the outspoken W. J. Bennett is inclined to ask, is whether or not the U. S. educational system produces graduates of quality and distinction. Does the system educate broadly and train thoroughly? Or again, as the White House folks frame the question, are American graduates "competive" or "comparable" for example, to their German, Japanese or Soviet counterparts?

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It thus behooves those of us in the American educational establishment who value individual integrity and professional independence, and who also harbor a desire to be part of a solution rather than remain a part of the problem, to engage in dialogue and debate on how to improve the performance of higher education institutions less external forces such as Congress or the incoming 1987 new administration or for that matter burgeoning public discontent settle the issue of our future for us.

A Collaborative/Interdisciplinary Approach

This paper began with a specific reference to colleges of education simply because this is an area in which I am professionally trained and educated. The paper will seek to demonstrate that the problems discussed within this context in actual fact pertain to most programs in higher education today. Moreover, the problems afflicting the educational system ought not be addressed from a singular disciplinary perspective because they are in essence, interdisciplinary. Thus any synthesis to the dialectic described above must occur within an interdisciplinary context and through a collaborative effort on the part of the entire university collegium.

The term "collaboration" is used deliberately because it connotes much more than a cooperative venture. In a collaborative venture there is a joint pooling of resources, both human and material, in support of common goals. Through the formation of an operational team, the effort is synthesized into an autonomous entity. It seeks and is able to forge relationships with established organizations within a given institutional structure in pursuit of established, legitimate objectives. It may or may not be a temporary system within a larger permanent system.

Although the larger context and goals of educational regeneration may be defined in a national debate, the hard work of determining programmaic change and renewal must occur within the collaborative context of interdisciplinary teams of university teachers and administrators striving towards common goals. What then constitutes the general contours of practical synthesis?

* Extend the time needed to complete program requirements.
  This is a strategic tack likely to be buffeted by the nasty winds generated by angry consumers (both parents and students alike), institutional competition and the competition among students for jobs.

* Improve quantitatively and qualitatively the pedagogical knowledge of the teaching and learning process and the requisite skills to effect this knowledge in classroom situations.

Two corollaries:
1) Improve and expedite the utilization of resources for both instructors and learners;
2) A more sophisticated use of technology in meeting programmatic and instructional goals.

As regards the two corollaries, the point here is that generic pedagogy and its state of the art applications in classrooms demand more XXth Century technologies than overhead projectors and slide tapes. Additionally, much of the materials currently being covered within the traditional modus operandi of "lecture, recitation and written assignments and formal testing" must of necessity be rigorously reexamined in light of technological capabilities.

Obviously, then, there is a need for both professional staff development programs revolving around improved teaching and curriculum review in the light of burgeoning new knowledge and contemporary technology.

Time, Tide and Technology Wait for No Curriculum

A typical example of knowledge advancement which most certainly will have an impact on science curricula and programs occurred in mid-March last. It was announced from several research laboratories around the world that momentous advances had been made in the production of new forms of superconducting materials. These materials, it was reported, would revolutionize computer circuitry and produce magnets far more powerful than those currently in existence.

To make this discovery universally comprehensible, the "materials" consist of a new class of ceramics which conduct electricity with no energy loss.

The point here is that at a hastily convened conference in New York city on these new discoveries physicists and other scientists met from 7:30 A.M. of a morning until 3:00 A.M. the next, in what was described by many as a state of ecstasy, or as another observed, "a Woodstock for scientists." A second observation of significance is that, although some of the research findings had only been arrived at "days earlier", papers and video demonstrations tapes for instructional and dissemination purposes had already been produced in time for this meeting.

Would that the professional staffs at colleges have the intellectual energy and the teaching knowledge and skills to impart analogous excitement, for example, to a Physics 101 class, which, after all, is "new" knowledge for the students in that class. Furthermore, there is more than half a chance that if half the time spent on the production of articles of scant intellectual worth as regards "advancing the frontiers of knowledge' within the "publish or perish" syndrome at our universities was spent on producing attractive curriculum materials, the student, the instructor, the institution and even the entire United States would be better off.

But, the fact of the matter is that most teachers--and most assuredly most college professors and instructors--exhibit extraordinary lack of imagination in their approach and execution of the teaching/learning transaction. They behave the same in 1987 as they did in one of the first documented studies of teacherly behavior in 1912. To wit: most teachers lecutre. They do so in the face of overwhelming evidence that this mode of information transfer is, simply stated, ineffective and non-productive as compared to other kinds of learning activities.

The overwhelming majority of college teachers persist in this antiquated mode of teacher/learner interaction regardless of the discipline, the level of instruction, the country, dominant culture or economic system.

Analogical Evidence

The 1912 study noted above was cited by K. A. Sirotnik, an University of California, Los Angeles, researcher, in an article entitled, "What You See is What You Get-Consistency, Persistency and Mediocrity in Classrooms", which appeared in the Harvard Educational Review. His description of apparent eternal norms of "teaching" in elementary and secondary educational settings span a period of over 70 years. The lecture, recitation and written assignment mode of teacher/learner interaction dominated then as it does today. This is also the international norm. At an international symposium on professional development opportunities relating to improving teaching at institutions of higher education, every speaker and paper almost without exception bemoaned the prevalence of the lecture syndrome and the notable absence of proven effective alternatives. Arye Perlberg's description of attempts in Israel to improve teaching practices at universities in the just cited publication makes for lively as well as informative reading.

The question naturally arises then, we know how to teach in other ways than the lecture mode, why don't we? Here is a brief (and admittedly incomplete) set of observations in this regard:

* College teachers teach as they were taught;
* "time constraints" argue against change even though the lecture mode is demonstrably inefficient;
* textbooks and other curriculum materials cater and encourage traditional teaching habits;
* alternative teaching strategies to the lecture mode require continuous time-on-task lesson planning;

- managing and directing student participation at high levels of productivity require sound and practiced presentational skills and a firm grasp of the workings of group dynamics;
- absence of knowledge of pedagogical research findings.

Much Ado About Something Important

Let there be no doubt, then, that this paper views the act of teacing as a dynamic universe where and when the most diverse of human intercourse occurs. Teaching encompasses various modes of instruction and is fundamentally interactive; it demonstrates; it directs students towards learning through heuristic discovery; it instructs by precepts, example or experience and it encourages learners to think independently and critically. It is an action-packed transaction between teacher and learner. Moreover, the teaching/learning transaction is based on an existing body of knowledge and research which, at the very least, contains strong indicators as to how humans learn and, at best, contains didactic certitudes. It is this widely accepted body of pedagogical theory and practice which needs to be incorporated into the general (normative) instructional culture and climate of higher education.

Tactical and Strategic Approaches: Policy Considerations

Any attempt to change group or institutional behaviors of long standing acceptance is fraught with multiple pitfalls to say the least. Paradoxically, this is particularly true of colleges and the professional caste associated with them. Although these professionals are trained in the scientific method of inquiry, they are highly ideosyncratic and solipstic when challenged as to their professional ("teacherly") behaviors. Outside of the Colleges of Education, the vast majority of college faculty have never been exposed to the formidable body of research and learning which is charactersitic of the best of College of Education faculty. While many of college teachers function "effectively" in the classroom on the basis of common sense and trial and error experience, far too many of them fall under the general description penned by my pedagogical compatriot, James Cooper: "For years, education has been criticized for its `folkways' practices . . . While this practice exists, many scientific concepts from psychology, anthropology, sociology, linguistics, cybernetics and related disciplines are now available to help . . . interpret . . . the reality of . . . (teaching)."

Top Executives Must "Buy In" To Teaching

Given this set of circumstances, a vigorous emphasis on the merits of the teaching function as regards monetary rewards, promotion and tenure has to be expressed in governing policies by the State Univerrsity Board of Regents.

The Chancellor, in turn, expressing the will of the board, must instruct the system's executive officials (Presidents, Academic Provosts, Deans of Colleges) to act strictly and energetically within these guidelines and to so instruct faculty review committees in matters of promotion and tenure. To reinforce this emphasis, system-wide awards of various kinds to outstanding teachers could be initiated by the governing bodies (including the legislature in terms of fiscal support). In short, an extremely strong message must be sent to faculty that meritorious teaching has come into its own and that it will be appropriately rewarded. The strength of the signal should be equivalent of seven on the Richter scale measuring earthquakes.

Organizational Structure: Interdisciplinary Developmental Teams to Improve College Teaching

Despite the fact that Colleges of Education and their faculty are viewed slightly askance by the faculty of other divisions at universities, its Dean and most capable faculty must assume a leadership role in this thrust to build new institutional and instructional capacities. In this body only resides the requisite expertise and knowledge of learning research and pedagogical principles to work in interdisciplinary concert with faculty from other university divisions.

The aim of this collaborative effort would be to disseminate knowledge of good teaching theory and practices through a total university system, to create and model exemplary models of teaching in a given discipline and to set-up a context for interdisciplinary research.

The benefits of such an initiative would be several. The College of Education teacher education program would be significantly renewed and enriched by a direct infusion of content from other disciplines, as well as new and different ways to teach such content. Other colleges and disciplines within the university would gain profitable access to the knowledge and technical expertise of the College of Education while, simultaneously, exploiting the opportunity to review their own curricular offerings within the framework of a cooperative interdisciplinary support system.

A "Developmental Team" might be staffed as follows:

Team Leaders: One each Senior Faculty from College of Education and Collaborating Discipline
One each Researcher/Writer for curriculum
Demonstration Teachers/Clinical Instructors as needed

Operational approaches should be extremely flexible and faculty development seminars should be made to be as non-threatening as possible with a great deal of individualization in helping faculty to enhance and reinforce their teaching skills. The aim of the entire enterprise is to create a context and supporting system where faculty can review their didactic skills against sound generic models of teaching and curriculum which are research based and related in part to their own disciplines. A not to be underestimated outcome would be the interest generated in the teaching and learning transaction throughout the entire system; it would not be confined to "junior" faculty. If the teaching function is clearly designated as important by the university power structure, all faculty will ultimately respond.

Finally, there is no doubt that student learning would be measurably increased across the board would the teaching function be broadly improved. In terms of our future that alone is reason enough to begin the initiative.

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WRITING SKILLS
IN AN INTERDISCIPLINARY GENERAL EDUCATION PROGRAM FOR ADULTS

MARY LEE FIELD

The University Studies/Weekend College Program at Wayne State University has been in existence since 1974. It provides a Bachelor of General Studies degree to working adults by offering courses in the evenings, on weekends and through television. The curriculum is interdisciplinary and consists basically of one year of social science, one year of humanities, one year of science and technology, and one year of advanced studies. Students who transfer into our program with credits from other institutions usually take a few of our lower division courses but must take a majority of the advanced studies in order to receive our degree. In the thirteen year history of our program we have experimented with a variety of ways to integrate writing skills into the curriculum. Some impetus for change or experimentation has come from internal pressures, faculty decisions and student needs. Other forces from outside, including the larger university and the corporations for which our students work, have also influenced our decisions.

Making writing skills an integrated part of the whole curriculum has become the ideal which the faculty generally supports. The elements which I will describe here are our attempts to achieve that ideal. Our methods address the needs of adult students to learn "academic" writing styles for the university while at the same time needing to learn other rhetorical styles for their work situations. Moreover, we try to prepare our students to pass the University-wide English proficiency examination, and we also try to respond to the businesses which frequently provide financial support to our students by paying their tuition in this program. In order to understand the present configuration of writing skills elements in our program, however, it is necessary to first review some of the history of this program, its student body, and the changing goals and needs of both our society and our students.

In the early days of this program, the student body was predominately blue collar workers, many of whom were using their veteran's benefits to continue their education. They were unused to writing, even in informal contexts, and we emphasized personal history, autobiography, and other more self-reflexive types of writing. Many faculty members would correct papers for grammatical and structural problems ONLY if the student specified that he (it was a predominately male population) wished to have that kind of feedback. Essay assignments were usually brief and grew from the student's personal experience. Even in the advanced studies courses, where students were to complete a Senior Essay as a requirement for graduation, the topics usually developed from the student's interest or expertise; they produced a large number of essays on labor organizations, labor problems, labor history, and similar topics. During this period, roughly from 1974 to 1979, students who wished help with their writing could be referred to tutors who would work with them on an individual basis. For a number of reasons,

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including the locations of students and tutors as well as the students' perceptions of their writing needs, this system functioned rather minimally. There was no required writing course in our curriculum that all students took.

Since 1979, however, major changes in our student body, in university regulations, in public attitudes and in the economy of Detroit (and of the nation) have forced a rethinking and reshaping of the writing elements in our program. The first change was in our student body. As Veteran's Benefits ran out, we experienced a drop in our enrollment and a change in the type of student who did enroll. The student body became more middle class, with a higher percentage of females, and became more and more funded by the corporations for which they worked. Major service institutions in the area financed tuition, for example, Michigan Bell Telephone and Blue Cross Blue Shield. A good proportion of our students paid for their own tuition during a part of this transition period; but when the automobile decline created a 20% unemployment rate in the Detroit area, those students also decreased. At present we have a student body which is about 60% female, 50% black, 90% employed by a service organization or in the lower management of the automobile industry and businesses related directly to the auto industry. The entry level skills, the needs, and the goals of these students are considerably different from those in the early days of the program; thus, the faculty's attitude toward the integration of writing skills has also evolved.

Changes in university regulations have also influenced our integration of skills. Beginning in 1979 the English proficiency examination (formerly required only of Liberal Arts students) became mandatory university wide (along with a math proficiency examination). We had anticipated this change somewhat by establishing a required writing course for all our students within their first 60 credit hours in the program, but at this stage we had no provisions for tutoring students explicitly for the proficiency examination. An even more recent change in university regulations, the imposition of a required core of General Eduction Courses, has also had considerable impact on our program, providing more impetus for our plans to integrate writing, math, and analytical skills across the entire curriculum.

Moreover, strong pressure for change has come from a new public attitude. The cry for "back to basics" and renewed emphasis on literacy skills has dominated the media and been the focus of public debate in education for the past five years. Our students are familiar with those arguments and come to the university with heightened expectations to develop their writing skills. They have also had pressure at work to do more writing in order to be promoted, and many see the need for enhanced writing skills as a criterion for advancement.

Finally, the changing economic structure in American society has had considerable impact on our curriculum. We see in Detroit a pervasive shift to service industries and more skilled, office-type employment, different from the old days of "the line" in the automobile industry. One of the first papers I ever delivered about the Weekend College Program was entitled "Humanities on the Line," a paper which illustrated the adaptation of a traditional humanities curriculum to a non-traditional student body of automobile workers. Today's paper, just like today's curriculum in our program, reveals both our current focus on skills and the different sector of the work force which now forms our student body.

The changes which these various forces have brought about are complex and varied; certainly they have influenced our entire curriculum and not just our writing program. At this particular moment in our evolution, writing skills are integrated into our program in a more systematic way than they were in the early days. That momentum toward integrating is still strong, but we still feel that we are far from the systematic and coherent writing program which we hope to achieve.

Our students' very first introduction to the topic of writing skills comes early in their experience in the program. All students are required to take a course entitled "Orientation to Interdisciplinary Studies" during their first term in the program. In the past a few students have "slipped through" and put it off for some semesters, but we are working hard to ensure that others do not do that. The course is offered for two semester hours of credit, and it is given on two weekends early in the term, usually the third and fifth (or sixth). Students meet from 9:00 a.m. to 4:30 p.m. on both Saturday and Sunday; thus, they have a total of four full days of instruction. They have a writing text to buy, a course pack of articles to complete before each weekend, and written assignments to turn in after each weekend. During the first weekend, one of the members of our staff gives a presentation about writing skills and what our students can expect in the university-wide English proficiency examination. In addition, students are asked to write a brief essay, one very similar to that required in the proficiency examination. That essay is then evaluated on the four criteria which are used in the university test--organization of ideas, thesis, mechanics, style. During the second weekend of the course, the essays are returned to the students,and they have the opportunity to see whether or not they would have passed the "official" exam.

The one text which students are required to purchase for this course is Charles Bazerman, The Informed Writer: Using Sources in the Disciplines (Boston: Houghton Mifflin, 1985). Most faculty agree that this text is rather difficult as a beginning text, especially for a composition course, but it provides the students with information about writing in the different disciplines and also gives instruction for and models of papers which analyze an author's purpose and technique, papers which relate reading and personal experience, and papers which synthesize sources. These are all types of writing which faculty tend to assign in the various courses offered in the program; thus, the text has a long-term value in the entire curriculum, including valuable sections on research and on "creating" knowledge which are relevant to our Senior Essay course.

In addition to students who enter our program with only a few or no hours of credit from other institutions, we also have a Capstone or Two-Plus-Two program (approved in 1985) which allows students with AA degrees to enter our program with a high percentage of their credits fully transferable; they can finish their bachelor's degree in little more than two years. These students, identified as Capstone Students, are required to take a more intensive "Orientation to Interdisciplinary Studies" which is offered for four hours credit and continues for two more weekend during the term (the first two weekends are with the group above). We are now working on a way that Capstone students, having received their marked essays back from the second weekend of the introductory course described above, will be able to sit for the official university proficiency examination during the third or fourth weekend if they choose to do so (i.e. if they think they have a good chance to pass), and thus eliminate that hurdle early in their progress through the program.

Another major element in our writing skills program is the required course entitled "Communication Skills," which students are to complete in the first 68 hours of their work in the Weekend College. This course gives students practice with basic essay development skills, establishing a thesis statement, developing paragraphs with examples, organizing an argument--as well as some help with mechanical details like punctuation and sentence structure. Some instructors in the Communications Skills course use exercises from the Bazerman text mentioned above, especially the ones on identifying an author's purpose and technique or writing about reading and experience. When possible, instructors also give assignments which help students practice the writing skills they may need to use at work. In my classes, for instance, students have been given the option to argue for a policy change in their work places or to write assignments which grow directly out of their work experience. In this class students are also asked to review the Bazerman sections on writing in the disciplines and to discuss the kinds of writing they are doing in other courses during that same terms. Making connections between the writing they are doing in different courses(and different disciplines) is an especially important goal in our interdisciplinary program.

The Bazerman text is the basis for an informal writing-across-the-cirriculum scheme which exists in our program. Several instructors list the Bazerman text as one of the books for their courses, and in giving assignments they refer students to the appropriate sections on writing in the disciplines or to writing about purpose and technique, reading and experience, etc. Students who have the experience of going back to the Bazerman text a number of times find that it is increasingly helpful; repeated use begins to have a cumulative effect.

This informal application of writing-across-the-curriculum is soon to become a more recognized element in our program. At a recent faculty retreat (March 1987) there was increased support for integrating some writing exercises on a regular basis for all students in the program. The current plan will provide a teaching unit (carefully planned by a representative sample of our faculty in each disciplinary 'home') that will be distributed to all teachers in the program. This unit will include 1) some material from Bazerman on analyzing purpose and technique, 2) an analysis of one article which students are currently reading in the course, and 3) an essay assignment for students to complete on a short article which has been selected for this purpose. The goal of this exercise is to make students more comfortable and skillful at anlysis of academic writing and give them the opportunity to present their own analysis in a brief essay. Making explicit the assumptions behind a professor's request to 'analyze'or to 'synthesize'is one of our goals since those skills are absolutely essential to many of the essay examinations, term papers,and other writing assignments frequently given by instructors. We believe such exericses will give students a useful and clear introducion to the analytical and writing skills which are expected of them in the program.

Another agreement which faculty reached at the recent retreat was to establish a tutorial system--one quite different from our earier model-- for students who need help with writing skills. Students who rank quite low on the essay which they write in the Orientation course will be enrolled in a special writing course, and others who perform poorly on the analysis essay described above will be sent directly to a tutor for help with their writing skills. This Core Tutor will advise the student on ways to improve writing skills, give them exercises, send them to other skills building facilities at the university and monitor the student's progress. There are two advantages to this plan. One is that students with special writing needs will be screened out and placed in a remedial course early in their study, thus insuring that the level of skills in the regular Communication Skills course is high enough for the instructor to concentrate on academic writing tasks, using sources and documentation, and analysis and synthesis. In addition, students who have special needs will have one Core tutor who will learn their problems and be able to give them special help.

There is one other informal element in our writing-across-the-curriculum which deserves further development. These are courses which are related to the issue of writing and language skills but which are not offered in any systematic way. For example, I have offered as an elective and later as an Advanced studies core course, a class entitled Language: Social, Cultural and Political Issues. This course covered such issues as the acquisition of language, a national language policy, bilingualism, cultural imperalism and the teaching of language, the literacy crisis, and language policy in the Third World. Such a course raised the consciousness of students about writing and literacy issues, and helped dispell the myths and misconceptions about these topics which the media has engendered.

Finally, we have one quite formal element which completes the writing program in our curriculum. The culmination of the student's work is eight credit hours of either Senior Seminar or Senior Essay. In the Senior Seminar class, a four hour course in two consecutive semesters, students are required to write a major research paper on the topics and readings being covered in the class. In the Senior Essay, however, students spend two semesters researching, writing, revising, and then presenting a fifty page paper on a topic of their own choice (approved by the instructor). An "A" in the Senior Essay course is required for graduation from the program with honors, and about one half of our students elect this option. (Of course, not all receive A's and thus qualify for Honors!) The students' experience in this course is both frustrating and rewarding. As they tackle their topics and engage in the research, they are overwhelmed by the material they must deal with and the amount of synthesis and analysis which is necessary. But by the time they have finished writing and rewriting the papers, talked about them with their peers in the Senior Essay class, and presented the paper to a faculty panel of three professors, they feel a sense of accomplishment which is often the high point of their work in the program. In order to prepare students for this final writing project so it will progress as smoothly as possible, we are now revising our commitment to writing-across-the-curriculum as a preparation for the Senior Essay.

Our future plans include the development of a five point "Skills across the Curriculum" program, including math skills and analytical skills along with the writing elements. We hope to have some experts provide inservice training for our own faculty, especially experts in WAC programs, writing experts, and experts in Teaching Critical/Analytical thinking. We plan to develop teaching units which all our faculty will use, one unit per semester, in order to give each student exposure to a similar requirement for writing about and analyzing academic materials. Ultimately, we hope to integrate all elements of skills development across the curriculum.

The evolution of our commitment to writing skills in the program presents a complex web of interactive factors. It is possible, however, to conclude by summarizing the elements which we believe are key to developing a coherent writing program in this interdisciplinary curriculum:

1) early identification of students with special writing needs
2) coherent and structured ways to help those students achieve higher skills levels
3) early introduction to students of the expectations for academic writing-the essay, a synthesis of sources, an analysis of academic materials
4) coordinated efforts by all faculty to provide positive and pedagogically sound exercises to develop specific writing skills
5) integration of language issues into the core curriculum
6) better ways to connect the student's writingneeds at their workplaces with academic writing expectations
7) more flexibility in the demands we make of students, NOT in the standards of achievement which we demand but in the modes of learning and performance which we accept as valid

The greatest help we have in achieving our task is the constant feedback which our students give us. It is from their communication of their own needs and expectations that we find the clues we need to build a program which meets the goals of both students and faculty.

THE ROLE OF WRITING IN INTERDISCIPLINARY PROGRAMS

Katherine K. Gottschalk

Students can better learn about a discipline by writing about it; and by writing about a discipline, students can learn to write better. This proposition is more often honored in theory than in practice, if it is honored at all. Certainly, many institutions wonder how they can persuade anyone other than English instructors (the new ones, who don't dare complain) to teach composition, let alone get the history or music departments to offer some writing courses. When students do emerge from their freshman writing courses, they often find few, if any, upper-level courses in which writing is taken seriously: papers, when required, may consist of one final term paper; exams may be multiple choice. Besides removing one of the most useful learning tools from their college experience, the lack of focus on writing does students a disservice: many college students go directly into administrative and other jobs that require hours at the desk—writing. Engineering students, for example, often think they won't need to write after they've finished their comp courses. But according to a study by Dorman and Pruett, professional engineers "will spend an average of one-third of their working time writing; ...few firms can afford to hire non-writing engineers" (656). They discover in the "real" world what they should have learned in college, namely that writing is a vital part of most forms of learning and communication.

With these problems in mind, I would like to describe the Freshman Writing Seminars, a well-established writing-across-the-curriculum program at Cornell University. Analysis of these seminars suggests why an interdisciplinary program is an excellent approach to teaching writing and why writing in all disciplines should continue at upper levels of college, as it does in Cornell's experimental Common Learning courses (which I also describe). Examination of interdisciplinary courses such as Cornell's can help us understand why teachers of non-writing courses who believe college graduates ought to write well need to assume responsibility for that goal themselves, rather than looking elsewhere for solutions.

Cornell's interdisciplinary freshman writing program began some fifteen years ago with the idea that students write better if they write about something they consider important. Students in six of Cornell's seven colleges now require their students to take two writing seminars, one each semester, preferably during the freshman year. The John S. Knight Writing Program offers each year's 3000 freshmen a choice of 80 subjects, given in 27 departments, from which to select their two freshman writing seminars. Students are placed in one of 170 seminar sections, all sections having only 17 or fewer students in them.

In the fall, entering Cornell freshmen receive a brochure describing freshman writing seminars in departments ranging from Architecture to Women's Studies, with everything from Biology and Society to History and History of Art in between. Students then apply for five favorities. Obviously it's best for students to get one of their first three choices: they'll be writing about subjects that interest them. In fact, in the fall semester about 50% get their first choice; 85% get one of their first three choices. During the second semester, with more time for the registration process, 70% get their first choice. (Describing the process of registration would require a separate paper.)

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After hearing about the freshman writing seminars, most people wonder how much consistency there is between writing courses offered by graduate students, lecturers, and faculty members in these twenty-seven some departments. The Writing Program guidelines require that all instructors assign at least eight pieces of writing and create substantial opportunities for revision; that students and teachers meet for conferences at least twice during the semester; and that a good portion of time in class should be spent discussing writing. In other words, all sections are indeed primarily writing courses. Graduate students teaching in the program take a semester-long course, "Teaching Writing," in the summer or fall; in the summer this course is attached to a teaching apprenticeship program. During the year faculty members designated as course leaders supervise the work of graduate students. Faculty members new to teaching writing sometimes sit in on "Teaching Writing." They can consult the Program's handbook, *Teaching Prose*, or, beginning this summer, they can take part in a summer institute for faculty members interested in developing writing seminars or in integrating writing into existing courses.

Freshman Writing Seminars have more in common than the number of papers required: they share the goal of teaching students how to write in a discipline. This situation can produce surprises for the students and sometimes for their teachers. The student who has learned to write an excellent paper in a government writing course about U.S. relations with South America may fall apart when he has to write about Leonardo da Vinci for history of art. In this very surprise lies part of the value of writing within an interdisciplinary program. Students may want to learn one "correct" way of writing, but a good paper for a government course requires a vocabulary and a set of strategies for argument different from those of the history of art course. When a student discovers that his best writing goes hand in hand with his best understanding of a discipline—its voice, audience, methods—he may discover a working principle that will prove useful for the rest of his writing life.

And the professor may discover more about the relationship of writing to her discipline. Most of us who teach writing in an interdisciplinary program eventually have to acknowledge that we can't necessarily blame that poor paper from George on the poor quality of his previous composition course. We may have to blame it on George's disorientation in the present one, our own. If George doesn't know what "perspective" means for an art critic, his paper on perspective in the paintings of Leonardo da Vinci will probably be disorganized; he'll have trouble with his thesis; he may work with a weak vocabulary; and the stress of disorientation may even cause his control of mechanics to fall apart, as Joseph Williams frequently points out (for instance at a 1984 conference on "Writing Across the Curriculum" at Cornell). And yet in the previous semester this same student, for whom problems of "perspective" in the visual arts seem so intractable, might have turned in a perfectly respectable piece about Reagan's "perspective" on Nicaragua. In other words, now that he's in our course, he needs to write often enough to encounter the discipline fully. As teachers, we have to provide the opportunities for acculturation. Writing, frequent writing, provides these opportunities.

With the interdisciplinary approach to writing, then, students may learn to look *at* rather than *through* their writing (to use Richard Lanham's terms from *Analyzing Prose*), and in doing so to use their own writing to increase their understanding of a subject. Rather than using writing to mirror what they already know, students can use it to find out what they don't know. If Sharon is writing about the use of perspective in paintings, she may well first notice that her thesis is flabby and that some paragraphs don't support the thesis—or that they're too short. To improve her organization—to fill out the gaps and make some connections—she's going to have to learn how people in the art world view perspective. Because she's writing about a subject, she won't be able to improve her essay in a rewrite simply by improving her spelling. She'll have to know more. She'll have to reread and read more. Samuel Johnson said, "I never desire to converse with a man who has written more than he has read." The readings in her interdisciplinary courses can help Sharon improve her writing (and her conversation). With improved reading of her own texts and the texts of others will come improved writing.

Optimally, by taking writing courses in different disciplines throughout their college years students learn to control their writing and consequently their ideas, rather than being controlled by superficial forms. They learn to make stylistic choices in accordance with what James Kinneavy calls the communication triangle (19): speaker, audience, and subject form the points of the triangle; the text is the body of the triangle created by those points. In interdisciplinary writing programs students learn to ask questions that take them beyond the words they are putting down on the page before them. What questions do historians ask? What does a reader expect a paper in history to look like? What vocabulary and format are normal for this subject, audience, and writer? What doesn't this audience need to know? We're all familiar with the student who foolishly begins a paper by telling us that "Shakespeare wrote many plays" or "Shakespeare is a very famous writer." We immediately recognize this student as a novice at literary analysis; after such a beginning it can be hard to take the rest of his paper seriously. But even sophisticated newcomers to a field make similar mistakes until they have had some chances to experiment. Richard Feynman, Nobel prize-winning physicist, tells the story of a summer when he took a vacation by studying in a new field, biology. Although he wrote a paper with publishable ideas, biologists greeted his writing with amusement. Why? Feynman didn't know what his audience would know and expect. He began his report with explanations of what they already knew before going on to what they didn't know. Writing well, then, is more than a matter of being taught to "write correctly" by a composition teacher: it's a matter of learning the field within which writing must always occur, of reading and writing widely within it.

A good interdisciplinary writing course at any level therefore needs to teach close reading of style as well as of content: "You cannot possibly write better than you can read" (E. D. Hirsch, quoted by Irmscher 157). Recent work on revision suggests that when we revise we form a mental representation of an ideal text against which to develop our written text; this representation can be no better than the criteria we have for good writing (Flower, Hayes, Carey, Shriver, Stratman 28, 33). "The store of rich, easily accessed criteria available to a solid grammarian, an accomplished stylist, or an experienced journalist allows them to detect whole categories of difficulty unknown to the novice" (Flower, Hayes, Carey, Shriver, Stratman 33). An experienced historian and an experienced biologist also have rich stores of criteria on which to draw when they write that are unavailable to the novice. The more our students read, and read carefully, the more they learn *how* to read, the more possibilities they will be able to draw upon for their own mental representations of texts. The interdisciplinary course takes students beyond the personal resources or notions with which they start a course and start their writing, beyond the ideas they may at first have about content, or conventions, or style. It widens their own experience, providing new ways of thinking, new ways of writing, an expanded range of choices.

Too often students arrive at college from their high-school composition classes concentrating on rules rather than on choice or exploration: "Never use *I*." "Never begin a sentence with *But*." "Support every thesis with three points." Some students have decided to use only simple sentences because they want to avoid mistakes. They're afraid of being sputtered at by their teachers in a foreign language: *frag, awk, trans bp.* Mechanical correctness and form are, of course, crucial—their noticeable lack immediately creates a negative impact on a reader that no number of spendid ideas may overcome—but when students see following rules as the primary goal, they lose sight of what writing really is, of what it's for—a way of exploring and sharing ideas. To some extent, freshman interdisciplinary writing courses can liberate students from the too prevalent notion that good writing is writing in which all the periods are in the right place. Period.

Stylistic control can come from an awareness of choice rather than rules, from an awareness of audience, of voice, of the demands of the subject. For instance, is it really a rule, as some think, "never" to use the passive voice? Always to use the active? Or are there possibilities a writer faces, decisions the writer must make?

Poisons can easily be extracted from some houseplants.
Children can easily extract poisons from some houseplants.

Each version may suit different writers on different occasions. *Science* will probably choose the passive voice for an article on houseplants. A pediatrician will need the active voice if she's trying to warn mothers about household dangers. So will a human ecology student doing a report on how children get into accidents. There's not one universal "right way to write," a one-track skill the composition course can teach. Novice writers, as Leslie Moore and Linda Peterson have observed, need to learn to ask questions about discourse conventions within a discipline rather than blundering into them and never, in consequence, connecting the ways in which a writing occurs within a discipline with its purposes and ways of thinking (469).

If we admit that writers always write in contexts that include audiences and subjects that may make different demands, a conclusion follows inescapably: one job of every teacher of every discipline is teaching students how to write *in that discipline*. That we should all assume responsibility for teaching students to write well in "non-writing" freshman-, or upper-level, courses is, naturally enough, a hard draught to swallow. We want, when we receive a disappointing, even "insulting" term paper, to blame that kid's previous composition class, not ourselves. (What composition teacher has never been accosted in the halls about the execrable writing of a former student?) But we have only to recall our own experiences with new courses or new jobs to know that a student may not be able to write a long final paper unless she has had plenty of opportunities to assimilate the disciplines' vocabulary, to get comfortable with its assumptions, and to find out how to ask questions, analyze, provide evidence, and so on. The old saw, "How do I know what I think until I see what I say?" should mean a lot to teachers: their students will start thinking when they *see*, in writing, what they have to say, and how to say it.

Clearly, it's necessary that teachers of upper-level "non-writing courses" require more than multiple-choice examinations or short-answer essay questions read only for "content." Students won't take writing any more seriously than their professors do, and when professors don't assign and read papers because they are afraid of missing the comma mistakes, they cheat their students of being read for the right reasons. We should read to find out what our students have to say and then respond. If we all believe that writing is important, that it's part of learning and even of the jobs most students will have in our fields, we are responsible for requiring writing of our students. Teachers whose own work requires writing or who are preparing students for a profession in which writing is important should stop thinking of writing as a "skill" taught only by English departments.

Even well-intentioned non-English faculty members sometimes balk at assigning written work because of their own timidity about commas, or because they lack time to read the results. There are, however, plenty of ways to incorporate writing into the classroom and into the learning experience of our students without endlessly commenting on papers. In *Writing in the Non-Writing Class: "I'd Love to Teach Writing, But . . ."* I suggest that:

> To improve or at least maintain writing skills while students are in non-writing courses, faculty can have their students—
>
> 1. discuss important motives for continued writing, namely to learn, and perhaps to succeed in a job later on.
>
> 2. read well-written works.
>
> 3. occasionally discuss the style of what they are reading and whether it is well or poorly written, persuasive or unpersuasive—and *why*.
>
> 4. occasionally imitate good models of prose.

5. write out questions about their reading and about the discussions taking place in the classroom.

6. keep journals about their reading and about their work in the course; write comments and summaries in laboratory journals of data.

7. make outlines, précis, and translations of the reading they do for the course; translate mathematical problems into prose.

8. take notes during lectures or class discussions, or write summaries of the lectures/discussions after the fact; the notes or summaries can be shared with other class members.

9. appoint rotating class secretaries to take notes and edit them for subsequent distribution to the rest of the class.

10. write short answers in response to a specific question that the lecture or discussion will address, and submit (or read) a final version at the end of the hour.

11. write out definitions of commonly used terms in class.

12. learn to investigate a subject by writing answers to exploratory questions characteristic of the field.

13. learn to explore a subject in writing by developing metaphors or analogies.

When papers are in fact required for whatever purpose, students can—

1. receive preliminary help and adequate commentary.

2. perhaps write collaborative papers.

3. try writing on word processors so that rough drafts can more easily be submitted for commentary and then rewritten. (14)

Everything we know about writing and acculturation into a discipline, I should add, suggests that if we do ask for papers, we require several short ones and return them quickly (with comments). One long term paper that arrives in our offices (and lingers there) at the end of the semester will help no one.

Getting faculty members to rethink the relationship of English and writing departments and their own disciplines is not easy. Instituting changes take time, and money, for faculty members need time to rethink their courses and their ideas about writing. At Cornell we hope that faculty training programs such as the one we are beginning this summer will help that process.

My discussion thus far would suggest that writing should continue in upper-level courses across the curriculum, for the sake of writing and for the sake of learning. Cornell's Common Learning courses emerged from recognition that writing should continue after the freshman year and from recognition of the important role writing plays in learning, especially when complex interdisciplinary problems are involved. Before describing these upper-level interdisciplinary courses, I'd like to add one more point about why students need to encounter writing after the freshman year: According to our own experience and some studies, students who stop writing after their composition courses don't simply stop making progress—they actually *regress*. They have to keep writing. "Unlike bicycle riding ('once you've learned you never forget how'), essay writing is an intellectual exercise that's only gradually learned; it must be constantly practiced, and perfected. Students need to write throughout their college years, in many courses, if they are even to maintain their precarious writing balance" (Gottschalk 1).

An interesting experiment with upper-level interdisciplinary studies and writing began a few years ago at Cornell with its experimental Common Learning courses. These are problem-centered seminars calling on the expertise of faculty members from four or five different disciplines. They address current problems, helping students see from what perspectives the problems can be addressed and encouraging them to think about solutions. Writing helps students coordinate and understand the problems and the perspectives.

Urie Bronfenbrenner, in Human Development and Family Studies, teaches a Common Learning course called "Human Development in Post-Industrial Societies"; team members have included faculty members from history, economics, sociology, anthropology, Japanese studies, nutritional science, and pediatrics. According to a course description, "The course analyzes the implications for human development of the profound economic, technological and social changes that have been taking place in modern societies at an accelerating rate since World War II. Particular emphasis is placed on the consequences of these changes for the development of children and adults in American society, and thereby, for the economic and social well-being of the nation in the years ahead." From teaching this course Prof. Bronfenbrenner has become an advocate of requiring more writing in upper-level courses. Students need the practice in argumentation that he can give them only when they write for him in his course. His team members have become involved enough in the course to read papers also. Both students and teachers benefit from this exchange of ideas.

The Engineering College offered a Common Learning course, "Science, Risk, and Public Policy," in which the professor had the assistance of a writing instructor. The two professors together developed writing assignments that included collaborative writing, submission of rough drafts, and a series of topics that progressively developed writing skills and built toward a final report typical of work engineers do on the job. In class, the writing instructor, besides entering actively into normal discussions, took responsibility for writing exercises and discussion. The two professors once planned a five-minute writing session on defining terms—and ended up spending an invaluable hour working through definitions of terms such as "risk assessment" and "availability bias," terms that were basic to thinking in the course but which had not before been explicitly examined. Through writing definitions students came to grips with basic ideas, and with the writing and rewriting needed to express ideas precisely. The writing professor also took responsibility for thinking of the courses' texts as writing models, not simply as vehicles for content. He helped students look *at* texts, for instance at a striking metaphor to convey a point: "to explain what a level of concentration means when it is expressed in parts per trillion, one researcher describing dioxin levels noted that 'There is one part per trillion when one makes a martini with one drop of vermouth and 15 million gallons of gin'." Students were encouraged to compare this with poor writing: "Estimates of average annual risk costs are very much dependent on the flood frequency curve adopted and the persisted [sic] problem of estimating frequencies of rare flood events becomes a deterrent."

It's worth pausing a moment to look at this sentence. Most of us are familiar with the style—fortunately our students are not. As I have suggested earlier, students need to learn how to *read* this sentence and understand why it exists. Acculturation into a profession can at its worst mean merely aping its most mechanical rituals and forms. If a course pays no conscious attention to writing, students will unconsciously notice and in fact probably imitate the style of this sentence—it's obvious and ear-catching—thinking it makes them sound like engineers. They won't notice the noun-laden, static style as such, or the lack of coherent cause and effect in the sentence construction, which hinges on "and"; how many will ever discover that *because* floods occur infrequently, it's hard to estimate . . . ? As adults, desperate at being unable to communicate with their employees or employer, wanting to write more clearly themselves or to edit the work of others, they turn up in extension courses wondering what went wrong with their college education.

The failure was not a failure to teach the proper use of the semicolon. It was a failure to set up a context for writing that provides a reason for learning about semicolons. College students need more courses that demand writing as a normal activity accompanying learning and communicating. Certainly in their evaluations of Common Learning Courses participants repeatedly comment that the writing assignments are invaluable in helping them to assimilate and evaluate problems and perspectives.

Students give Common Learning courses rave reviews: they are startled and delighted to find that learning isn't purely a matter of memorizing. They see distinguished professors arguing among themselves and with the class over facts and analyses and solutions; they see the many perspectives from which a problem can be addressed and must be addressed if adequate solutions are ever to be a possibility. In these small-group discussions students discover how learning really takes place, and that they can be part of that exciting process. Writing in such courses makes learning more than memorization tested at the end of the semester for accuracy and quantity; writing itself becomes more than a matter of correct form (funnel? key-hole?)—it becomes both means and end in the process of discovery.

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TEACHING WRITING ACROSS THE CURRICULUM TO NON-TRADITIONAL STUDENTS IN NON-TRADITIONAL WAYS

Sally B. Parr and Martin Berlinrood

In a promotional piece for the returning students program at Goucher College, one woman was quoted as saying, "It's frightening to sit down and write an essay when the only thing you've written in 20 years in a grocery list."

Although her experience may be different from other returning students at Goucher, her anxiety is shared by them all. That anxiety is compounded by the knowledge that there will be considerable emphasis placed on writing in most of Goucher's courses. Evaluaton of student performance rests largely on papers and essay examinations with few classes using short answer or multiple choice tests. All students must achieve writing proficiency to graduate by earning at least a grade of B- in the second semester of freshman composition or successfully completing one of the writing across the curriculum courses.

So, how does a person who has written nothing but shopping lists in 20 years, gain both the skills and the confidence to write academic papers?

We have tried to approach this problem through a special writing course offered in Goucher II, a program originally designed for returning women which became coeducational in the fall of 1986. The writing course, English 223 - Writing in the Arts and Sciences, aims to do three things: alleviate writing anxiety, develop writing skills by focusing on the writing process, and introduce students to the vagaries of writing and the ways of thinking of scientists, social scientists, and humanists.

Much of what we do to deal with the anxiety and to teach writing as process is fairly standard stuff.

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To reduce writing anxiety we use a variety of techniques: journal writing, collage writing, process notes, free writing - anything that will allow the writing to flow without concern for perfection and correction, but with great concern for discovery of ideas, discovery of voice. We stress strongly notions that students own their own writing, that not all writing needs to be evaluated, and that they can help each other as much as an instructor can. As a result, students begin to enjoy writing and to gain confidence in their abilities. The class becomes a cohesive group, and they willingly share their writing and their concerns about their writing.

To develop writing skills, we teach writing as process. Most returning students last took a writing course when the way of teaching writing focused on red ink corrections on final drafts. Today, the teaching of writing encourages pre-writing explorations, drafts and revisions. In our course, students hand in their rough drafts with tape cassettes. The instructor comments and suggests revisions into the tape.

The tapes are a very important part of the process. They provide a means for the instructor and student to converse about the writing, in effect, creating the conference as the most significant form of feedback to the student. They also focus the student on the draft and revision as the important elements in writing and deflect attention away from the importance of the grade on the finished product. Individualization of the teaching process comes from the ability of the instructor to talk directly to the student about the paper in progress; it also reduces the amount of time that the teacher is the center of attention in class. Students appear to respond by taking more risks in their writing because there is no penalty directly associated with the risk taking, and their writing improves dramatically.

However, no matter how much the anxiety is reduced and how comfortable the students are in taking risks with their writing, new challenges arise when they are faced with writing in a new academic discipline. Writing a natural science paper is particularly challenging for them because, for the most part, they have systematically avoided the study of science.

We have worked for three years to develop a successful way to teach writing in the sciences to these students. In developing the model we had to confront several issues.

First, the assignment is artificial. Students in English 223 have spent the semester focusing on writing;

the course does not have a content base, so the science paper, the last in the course, is not an outgrowth of a course of study.

Second, many of the students do not like science, never have, assume they never will, and are terrified of the topic. For some, science has been an avocation but they believe that they do not know enough to write about it.

Third, the students tend to approach science from a social science point of view. They do not ask complete questions; they ask about the ethical and moral issues, but stay away from the hard science associated with their topics.

Fourth, the class, by this time, has become a close knit, supportive group. To bring in an outside faculty member disrupts the dynamics of the group.

So, with all this confronting us, we begin the teaching of writing in the sciences. We confront the issue of artificiality by acknowledging the truth of the situation and by establishing with the class that the goals of the paper are to help them understand what science is and what it means to think like a scientist, to enable them to be familiar with library resources in science, and finally, to afford them an opportunity to investigate a topic about which they have asked, "I wonder why?"

We also confront the anxiety about science head on. We begin the whole process (five - six weeks) by asking students to do some journal writing in class. We use a collage exercise. Around the topic of science they write their first thoughts, some scenes about their experiences with science, a portrait of a scientist, a definition of science, a lie about science, then their final thoughts about science. The conversation about their writing develops so that, by the end of the first class students have a sense of what science might be and how scientists ask questions. This last understanding evolves as a result of examining their questions and asking about the underlying science involved. The science faculty member speaks briefly about his research interests and attempts to bring the class to the point of saying "I never thought of asking that." Through simple observations of common occurrences the class moves to focusing on an issue in science and speaks to the problem of writing about an issue without being an expert.

In the next meeting, readings that reflect various styles and audiences form the basis for class discussion.

The students write about their reactions to the readings, what was common about them, what they liked, and what they disliked. Their writing brings us to a discussion of audience, style, purpose, and finally the presentation of content. The discussion is periodically redirected to points made in the readings and to the ways the authors focus on the topic at hand. Responses to those readings both lessen anxiety and allow the class to move into content area with some common knowledge based on the readings.

They are ready for the paper assignment: Ask a question and answer it for the class. To prepare for that assignment (drafts due three weeks later), they come to class with questions: Why do birds migrate? How does aspirin know which part of the body to make feel better? Why do dogs bury bones? Why does perfume smell different on me than on someone else? And more. We brainstorm about 30 questions. The role of the science faculty member is critical here. He begins to ask more questions so that the students begin to see how the scientist would approach an explanation of the observation.

This is the moment of change in thinking for the class; they begin to understand that scientists ask different questions from the kinds social scientists and humanists ask. Students also begin to understand that they can ask those questions.

They also see that they can comprehend portions of the scientific literature well enough to research answers to their questions. This is followed by the students talking about their topics and the initial research they completed. The goal is for them to focus their papers, to seek answers to their questions, and to talk/write knowledgeably about their areas of research. In fact, we ask them to speak about their papers - short versions - in class without notes or journals. They can do it.

They then do a draft, read by either one or both faculty members. It is revised and rewritten.

We believe this process changes how they respond to the idea of science and the study of science. We believe it gives them the research/writing skills to survive writing for a biology, chemistry, or physics class - although it does not give them experience with laboratory reports. The scientific method, if not explicitly taught, has become part of their thought process. We believe the interplay between the content instructor and the writing instructor helps the students develop better thinking skills and writing skills. (When the biology instructor says the papers need to be focused, to follow a logic understandable to the reader, what's a writing instructor to do, but nod I told you so?)

There is minor disruption to the dynamics of the group when the science faculty member comes into the class. However, it is the strength of the group that reduces the fear, provides the continuing support for the expression of ideas that will not be judged, and stimulates active discussion of the topics. The students feel comfortable with the audience. They speak freely, test ideas, and gain confidence in their ability to communicate scientific information. In effect, the minor disruption is a disruption for about fifteen minutes, then the class goes on as normal.

The model is useful in the teaching of writing across the curriculum because it develops writing skills and introduces students to the kind of thinking that will be expected in content courses. The continued discussion develops critical thinking skills. The students become confident in their abilities to deal with materials once thought to be too complex, in ways of thinking never tried before, and in communicating their ideas in forms that extend far beyond the "shopping list".

PROVIDING INDUSTRY WITH COMPETENT WRITERS

Meritt W. Stark, Jr.

Introduction

The quest to make the U.S. more competitive could be a boon to higher education if university and college administrators and faculty take a careful look at the needs of industry in terms of employees who can write well. If we are to help rescue the U.S. from its predictment as the world's leading debtor nation, academics must be willing to accept the challenge of curricular reform and professional development. English professors in particular can help improve U.S. competitiveness by recognizing the importance of (1) teaching business communication and technical writing, (2) incorporating advanced computer technology in their writing classes, and (3) devising ways to promote professional writing across the curriculum.

As the U.S. Congress prepares to increase federal investment in research, education, and training, English professors need to begin lobbying to ensure that the investment is wisely appropriated. Employees that are highly trained in technology but poorly trained in written communication skills will slow the drive to give American companies a competitive edge.

Dale DeConinck and Dale Level conclude from their research that successful companies can be identified by a common set of characteristics, one of the most important being the use of communication. They believe that communication is essential for organizational effectiveness. By some estimates, American industry spends as much as $76 billion annually in time and materials in the communication process. The cost of producing a single letter or memo has risen beyond $7.00.

Although the number of elective college courses in business and technical writing has increased dramatically during the last ten years, most college degree programs still do not require that students enroll in professional writing courses. One result of colleges' failure to require students to take professional writing is that virtually every large company conducts in-house training programs to teach executives how to write letters and reports properly. Consultants are teaching English composition because our education system has failed to do so. The training is expensive, and employers resent that they must do it, but they must.

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As Anna B. Martin has stated so succinctly, "Basic skill deficiencies--the inability to read, to write, and to perform arithmetic--are not only keeping millions of Americans from adequate employment or job advancement, but they are costing U.S. employers estimated millions in lowered productivity, accidents, and needless mistakes and in remedial training." Customer relations suffer because of a generally negative tone of correspondence. Quality control is hampered by incomprehensible reports. Mistakes in equipment handling occur because of confusing instructions.

As the U.S. economy becomes increasingly based on high technology, the rapid and accurate processing of information will become more important. As Alvin Toffler has warned, "An information bomb is exploding in our midst." John Naisbitt has calculated that whereas in 1950, 17 percent of us worked in information jobs, now 64 percent of us do. Robert Gieselman has analyzed how the student demand for instruction that will prepare them for jobs in the information society is being translated into higher enrollments in collegiate writing courses. "In technical writing alone, the trend is startling. The number of students enrolling in technical writing courses increased from 25,999 in 1968 to more than a quarter of a million in 1982--a tenfold increase in 14 years." Many colleges and universities have been unable to meet the demand.

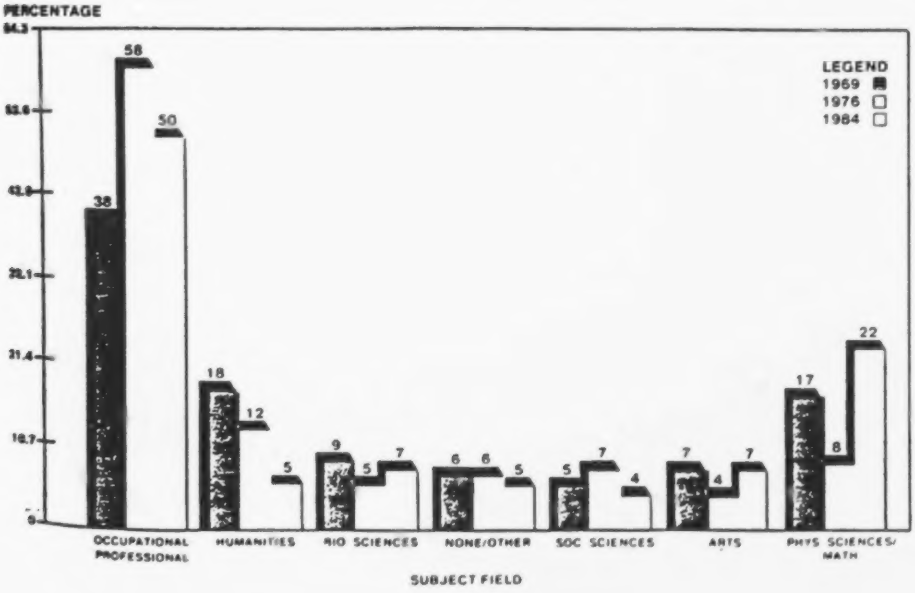
If English departments are to provide expanded course offerings in technical writing, introductory and advanced business communication, and report writing, faculty members must pressure for financial support for research and professional development. If we are to prepare new employees for the writing tasks they will face and retrain those needing new skills, we must become masters of new computer technology related to work processing, graphics, spread sheets, and computer assisted instruction. Our writing centers must be modernized to provide instruction in professional writing and computer literacy.

Enrollment Trends

A review of enrollment patterns of students enrolling in American colleges and universities reveals that students are increasingly preoccupied with preparation for jobs. Statistics compiled by the Carnegie Foundation for the Advancement of Teaching shed light on the shift toward careerism among the country's college students.

PERCENTAGE OF UNDERGRADUATE ENROLLMENT IN MAJORS BY SUBJECT FIELD: 1969, 1976, AND 1984

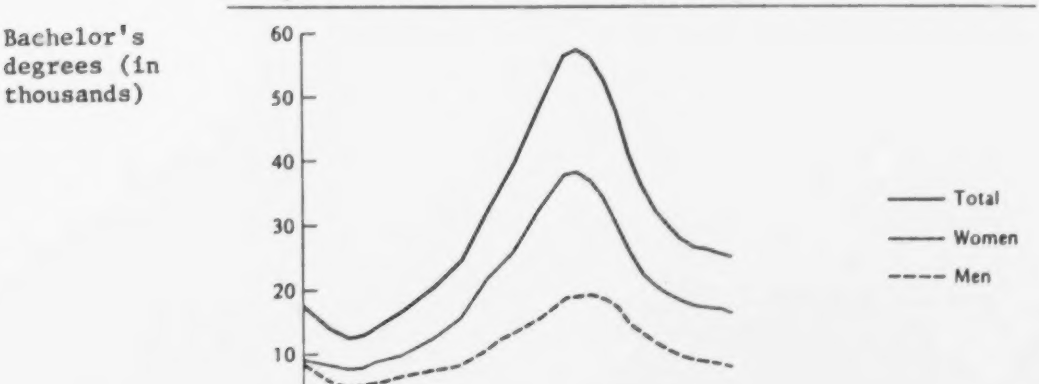
CHART I



SOURCE CARNEGIE FOUNDATION NATIONAL SURVEYS

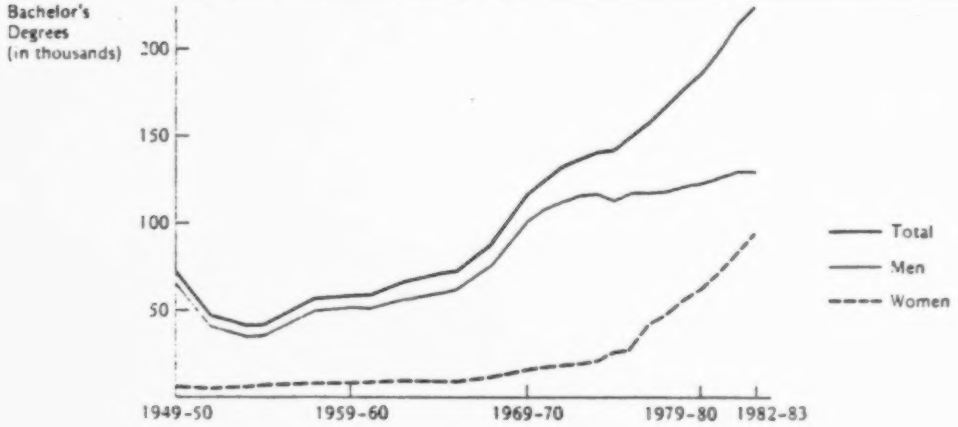
In 1984, 50 percent of all college students were majoring in occupational-professional majors. The percentage of students majoring in the humanities had declined from 185 in 1969 to 5 percent in 1984. The number of earned degrees in the humanities has declined dramatically since 1970.

Earned Degrees in the Humanities:
English, Selected Years, 1947–48—1982–83



Earned degrees in Business and Management have soared steadily since 1949.

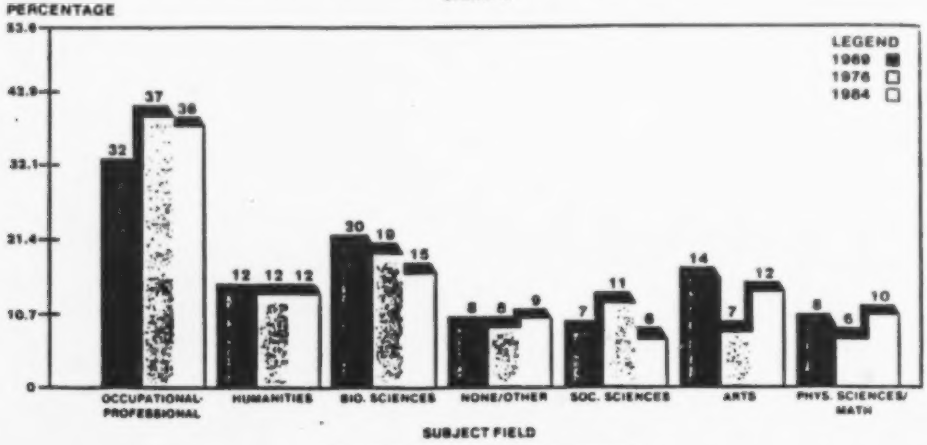
Earned Degrees in the Social Sciences:
Business and Management, Selected Years, 1947-48—1982-83



The most dramatic shifts in choice of major have occurred at the less selective liberal arts colleges which are especially sensitive to student demand. At these colleges, job related majors attracted less than half of the undergraduates in 1969 and 1976. However, by 1984, almost three-fourths of all undergraduates at the less selective liberal arts colleges were majoring in occupational fields.

A comparison of the percentage of faculty teaching in subject fields with the percentage of students majoring in those fields for 1984 shows how faculty distribution in the various disciplines runs counter to the enrollment trends.

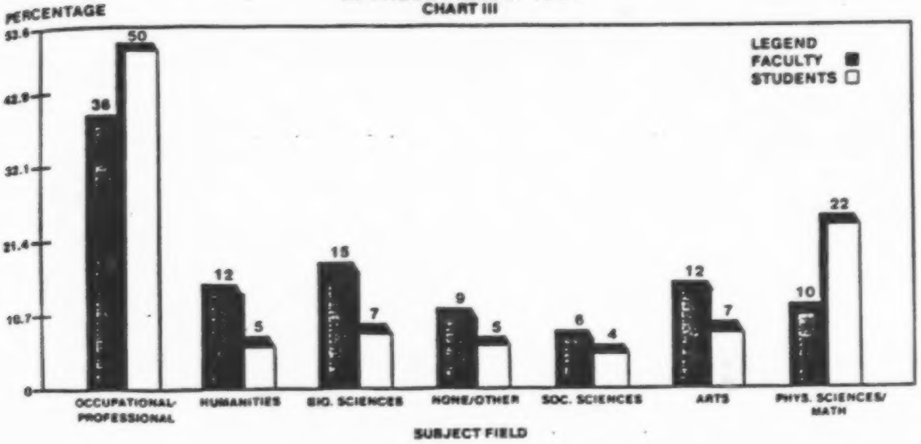
PERCENTAGE OF FACULTY TEACHING IN SUBJECT FIELDS: 1969, 1976, AND 1984
CHART II



SOURCE: CARNEGIE FOUNDATION NATIONAL SURVEYS

COMPARISON OF PERCENTAGE OF FACULTY TEACHING IN SUBJECT FIELDS WITH PERCENTAGE OF STUDENTS MAJORING IN THOSE FIELDS: 1984

CHART III



SOURCE: CARNEGIE FOUNDATION NATIONAL SURVEYS

Although 12 percent of the faculty are teaching the humanities, only 5 percent of the students are majors in the humanities, while the percentage of faculty teaching in professional studies is lower than the percentage of enrollments in their fields. This may reflect the fact that the social humanities and the arts often provide the general education experience at institutions with a strong occupational orientation. Also, the imbalance probably reflects the fact that large percentages of arts and science faculty members are 'tenured in' on many campuses where enrollment patterns have been shifting.

The preceding charts and graphs should stimulate English professors to begin examining how they can best ensure that the 73 percent of the students majoring in occupational-professional fields can receive sufficient instruction in writing to perform effectively in American businesses. English professors who find themselves teaching more freshman composition classes and fewer upper-division courses in literature should begin to investigate how they can broaden their skills and knowledge to address the changing priorities of their students.

In their study of college-bound high school graduates in 1972 and 1980, Lyle V. Jones, Tanja Bekhuis, and Ernest C. Davenport, Jr., discovered that Education and Business majors exhibit relatively low average levels of achievement in high school. Students majoring in Education and Business displayed the lowest mean mathematics and verbal SAT scores.

English professors need to ask themselves and their colleagues in the School of Business if two basic freshman composition courses are sufficient for students choosing occupational-professional majors. When students who are not competent in writing are allowed to graduate from colleges and universities, the reputations of English departments and schools of business suffer.

More English faculty members are becoming aware that their departments need to shift their priorities. Although today's teachers of business communication are most likely to be affiliated with collegiate schools of business, nearly 25 percent are associated with English departments. As more English departments recognize that instruction in professional writing is an important responsibility, additional teachers will begin to undertake professional development to enable them to teach business communication, technical writing, report writing, and advanced word processing.

Course Design

The design and content of business communication courses has been well documented by Scot Ober and Alan P. Wunsch in their article "The Status of Business Communication Instruction in Postsecondary Institutions in the United States." Although they discuss the allocation of class hours to various writing assignments and give useful details on texts and course content, they neglect to indicate how computer technology is becoming increasingly integrated in professional writing courses.

Contemporary research on writing instruction has encouraged many teachers to emphasize teaching writing as a process. Jeanne W. Halpern has surveyed 125 writers in business, industry, and government to determine what they have learned during the last few years on the job. The respondants' answers fell into six general categories:

1. To generate ideas and information for my assignments;
2. To adapt my writing for different audiences;
3. To clarify my purpose;
4. To organize my material effectively;
5. To control the tone or voice of my communications;
6. To polish my drafts of letters, memos, or reports.

The use of computer technology in facilitating the writing process has been well documented. Word processing is particularly useful in the preparation of drafts and in editing and polishing. Sophisticated word processing packages allow students to organize the material effectively using charts, graphs, and schematic diagrams. They can enhance the appearance of reports with highlighting.

Conclusion

The language of business and technology should not be foreign to English teachers. We should no longer send our students to the career placement center to get advice on how to prepare their résumés. We should no longer assume that someone in the Business School is going to teach our students to write well. Let us, as English teachers, lead the drive to make America competitive by improving our students' communication skills.

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PRODUCTION AND USE OF VIDEOTAPES FOR INDEPENDENT STUDIES

C. Carter Colwell

Inexpensive video equipment is now within the financial reach of most faculty and certainly of their audio-visual departments. Simultaneously, the sophistication of such equipment has soared, making low light photography, continuous automatic white balance, titling, and editing possible to anyone. An independent videographer in Florida commented that consumer grade equipment is running about three years behind the capabilities of studio equipment; that is, a consumer today can do as much as a broadcast studio could do in 1984. Let me describe an effort I made several years ago to create an independent study in the humanities, based on videotape.

With the help of a small summer grant from Stetson University, I spent three weeks shooting ten hours of tape of contemporary architecture and sculpture in New York, Washington, Bear Run Pennsylvania, Columbus Indiana, New Orleans, and Florida, my home state. In four weeks, I edited this ten hours of raw material into four one-hour tapes on Four-Dimensional Art.

The premise of the course on Four-Dimensional Art is that during the twentieth century, plastic art has moved away from forms that can be grasped in one more or less instantaneous vision. Now, time is of the essence of the aesthetic experience. In contrast to symmetrical, self-contained architecture conceived often as facade that presents the interior in its best aspect, or the sculptural symmetry of Greek architecture, modern art must be seen successively: A path is created, with changing vistas, through which the viewer moves, as in the elevator through the roof of the Regency Hyatt in Atlanta; or protruding elements change visual relationship as the viewer walks around the work, as is true of Wright's famous Falling Water, with its retaining walls, porches, and patios; or the back or sides are in surprising contrast to the front, at least unpredictable from the front, as with the curving front and rectilinear rear of the new art museum in Atlanta; or mirror surfaces, whether windows or walls, reflect the changing environment and its passing clouds, birds, and traffic; or parts move, as in Tinguely's kinetic sculpture Chaos I.

Many efforts were made to make the tapes vivid, both seriously and humorously. Commentary touched on tragic aspects of some works; for example:

> Many modern works seek a minimal affirmation, an area of positive humanity, as the castle keep or final hold from which they will not be driven. Raymond Mason's brutally fragmented torsos, their surfaces scarred and pitted, expose the frailty of human flesh as though it were a side of beef. I think of

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> the cattle cars into which Jews were herded before the final indignity of their slaughter. Yet these figures are not animal. They are human, capable of protest and of endurance.

Broad humor was used liberally, picking up different motifs. In Washington, for example, shots of animals at the zoo were used as visual illustration of a simple point: An elephant with one hind foot raised, to illustrate the apparent imbalance modern materials make possible; amorously necking camels, to illustrate kinetic art; a hairy orangutan whose face has unexpected appendages, to illustrate how one vista (the orang's rear) may not anticipate another (his flopping cheek flaps). A question about the cultural impact of the architectural renaissance in Columbus Indiana, where an enlightened industrialist has funded the hiring of internationally renowned architects for public buildings, is answered by a placard advertising mud wrestling. In the introduction to one tape, the president of the university is cut in every time the words "Four Dimensional Art" are used, saying them in a different shot each time, a mechanical repetition using local color that satisfies Bergson's analysis of humor as mechanization.

In addition, cuts were made on action when possible, such as the passing of a truck between camera and building, or zoom out from a closeup to show an unanticipated facade. (A twelve to one zoom, rather than the more usual six to one, facilitates that effect.) And serendipities, such as museum goers commenting on a work, or the reflection in a glass wall of a bird flying by a flag, with a pan to the real flag and the bird's twin flying by it, were used as often as available.

Note that not all equipment makes all effects possible. For editing, particularly, a matched pair of VCR's, with some kind of controller, aids immeasurably; they have been available for under $2,000 in the consumer lines, and are currently available for around $4,000 in professional ½ inch equipment. My editing would have gone much faster had I had such a luxury. With an unmatched pair--one was rented--, no controller, and a lot of practice, I was able to control editing to almost a quarter second margin, no mean feat since there is a lag after a button is pushed before the machine begins to perform the selected function, a lag that varies from machine to machine and function to function. What is called "backspace editing" and audio and visual insert capabilities are essential; fortunately, they are common, although not universal, features. Visual scan in both directions, also necessary, is virtually universal.

With professional half-inch editing equipment, such as that offered by JVC and recently Panasonic, very precise cuts and inserts are possible. In many areas, do it yourself editing shops are appearing; in central Florida, the use of professional editing equipment for cuts and inserts (titling overlay costs more) is $25 per hour. Working at home with consumer equipment, I tried to edit each tape straight through without stopping, so that I would not get the color bars that usually appear at a cut when consumer equipment has been turned off and restarted. I can report that if the edit has been carefully planned in advance, including the resetting of the counter at midpoints of raw tapes as they are swapped back and forth, a one hour final tape with heavy and frequent cuts can be edited in four hours. However, the preplanning may take a number of days.

That does not include sound editing, which is much easier to do with consumer equipment.

The course, which also assigned a text on architecture, was offered as an independent study for one hour of credit during a four week minimester, part of our 4-1-4 calendar at Stetson; students simultaneously took one other course, usually meeting several periods a day, for three hours of credit. As instructor, I attended one class session to explain course structure. Students then had numerous opportunities to view the tapes, shown on several screens in a small auditorium style classroom, and took an examination on the tapes and the text at the end of the four week term. For this discussion I will ignore the text, which I considered background information. There was nothing unique about its use or the objective questions based on it, requiring recall of vocabulary and major concepts.

The examination tested student memory and grasp of the aesthetic premises of the course, explained in lecture on the tapes. Such lecture was of three types: Voice over on-site visuals; a few on-site shots taken by my wife, of me on location speaking about works in the background; and short studio shots (my den, where video recorders for editing were set up), which I made of myself using a tripod, serving as brief introduction to each tape. The intellectual content was not particularly demanding, and most students had little trouble with the four "D's" of four dimensional art--distance, deviation, depth, and duration--or with the half dozen ways modern art requires the fourth, duration.

More demanding was my testing of students' recall of the way an individual work looked when they encountered its name on the examination. An example, simpler than many of the questions actually used, would be

The color of d'Ipousteguy's "Man Pushing a Door" is

1. red
2. blue
3. green
4. bronze
5. white, black, and maple

Students were told in advance that such questions would be on the test, told both orally during the introductory class and in writing on mimeographed handouts that also named all works shown, in order. The experimental purpose behind such questions was to require students to see the works often. The educational premise is that looking closely at visual art and trying to remember how it looks enhances a student's aesthetic experience and sophistication.

Student performance on the test was a disappointment to me and of course to some of them. I had felt prior to grading these that since the emphasis was so heavy on direct memory, and since the course concepts were so simple, they would do better than usual, instead of somewhat worse.

Student commentary, when surveyed, was interesting. A substantial majority said they would recommend the course to other students, a majority that cut across all letter grades. But a majority of that group stipulated that they would warn, and I should warn, students that much more work was required than they had anticipated. I had in my introductory remarks urged a minimum of three viewings; I should have anticipated that many students would understand "minimum" to mean "optimum" or maximum." The group who wanted a work warning was, not surprisingly, skewed toward the bottom of the grade scale. All of the handful of F's and most of the D's said this. But so did one or two A's. In addition, a significant minority objected to seeing jokes and extended titles repeatedly.

Student response indicated to me that I had been aiming at two unfortunately incompatible goals: Positive affective response, and intensive memory drill. Entertainment and efficient informing are not always compatible. The entertaining gimmicks I added, which appealed to most students first time around, understandably did not continue to entertain after repeated viewings. Yet the repeated viewings were necessary for familiarization and recall. On the other hand, for someone who expects never to be examined, and as pure affect, many of the shots linger too long, allowing extraction of all information from a scene, rather than cutting as the curve of comprehension peaks, or--as is the MTV style--even before it peaks.

There is a technological solution to the dilemma of choosing between fast amusing pace for an audience geared to MTV and slow saturation pace for maximum absorption of information. The solution is individual viewing, with the student viewer having control over fast forward scan and rewind. Individually controlled viewing does more than solve the dilemma of entertainment versus drill. Not only jokes and now unnecessary illustrative material may be skipped, but also those items the student is confident are already learned and well remembered. Study review thus is much more efficient.

Unfortunately, providing such individual viewing facilities for any substantial number of students is equipment--and cost--intensive. For courses very few students will take, however, such a facility may well be cost effective, if the alternative is a third or a fourth of a faculty member's pay for one term.

An alternative solution to the tension, when individually paced viewing is not possible, would be to separate the functions of affective experience and information retention, relegating the latter (information retention) to printed material, and using videotape for the former (affective experience), reducing each one hour tape by about fifty per cent and pacing them faster.

I am now beginning the process of putting some class lectures on tape for use with a more traditional course. My intention is to make viewing the tapes an out of class assignment in conventional literature courses, offering one or two group showings on school equipment. Class time will be devoted to discussion and student readings.

As an effort to make independently paced study possible, increasing retention, the tapes will be offered for rent and for sale, for individual use at home or in the dorm. As an effort to keep some affective values, and to avoid the soporific effect of thirty-five to fifty minutes of talking head, floating above lectern and in front of greenboard, each lecture will be taped in front of a variety of more or less relevant backgrounds (a Gothic church, a Jacobean interior, a rural dale). By traveling during the next few summers, I will expand the variety (and perhaps also the relevance) of such backgrounds. My hope is thereby still to combine in videotape the values of affect and information.

USE OF AN INTERACTIVE MEDIA/MICROWAVE SYSTEM IN A BACCALAUREATE NURSING PROGRAM

Emily Harman, R.N., M.A.
Carla Phillips, R.N., M.S.

The Ohio University School of Nursing offers a fully accredited baccalaureate nursing program. It is an upper division, completion program designed for registered nurses (RN's). The School of Nursing began as a result of two studies which "documented the need for a baccalaureate nursing program for registered nurses as well as the need for continuing education for nurses in the nineteen-county area of Southeastern Ohio". (Ohio University, School of Nursing Self Study Document, p. vii). The program is one of many extended community programs within Ohio University and serves the adult learner population of RN's within a broad geographic area.

The main campus of Ohio University is in Athens, Ohio. The extended campus includes five regional campuses located throughout southeastern Ohio, in Chillicothe, Lancaster, Zanesville, Belmont County and Ironton. A Resident Credit Learning Center is located in Portsmouth, Ohio. Students in the School of Nursing are located within the nineteen county region as well as in the neighboring states of Kentucky and West Virginia.

Since it's inception, the School of Nursing has been faced with two major concerns: 1) meeting the educational needs of the adult learner and 2) the allocation of resources throughout the region. The RN students in the program are of an average age of 33, married with two or more children and work outside the home either full or part-time. Responsibilities of job and family generally prohibit them from attending classes on the main campus. With the needs of these students in mind, the nursing curriculum is offered on

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the main campus as well as the five regional campuses and the Resident Credit Learning Center. The required general education courses are offered at these locations for their convenience. The Independent Study program offered by Ohio University, provides the students with yet another option for completing the necessary general education component of the program. It is not uncommon for RN students to complete the degree requirements for the Nursing Program without ever attending classes on the main campus.

Student-driven course scheduling has been the norm rather than the exception in the program. A variety of strategies have been implemented, including week-end and one day a week courses. At the present time, all day course scheduling, with a clinical course and theory course taught one day a week, has proven to be the most convenient for the majority of the students.

A mobility plan (see Fig. 1) was established and faculty were assigned to each of the designated regions. The sequence of nursing courses is rotated through each region on a regular basis. While faculty are assigned to teach in these regions, they continue to enjoy their status as Athens based or main campus faculty. The nursing faculty as a whole meets regularly and serves on committees on the main campus. The nursing courses are all designated as main campus courses. Faculty have offices on both the regional campuses and the main campus. Classroom space as well as secretarial services are provided at each of the locations as needed.

At present, two full time faculty are assigned to each region. These faculty live within the region to which they are assigned, however, the distance between some of those campuses may be as great as 75 miles. Thus, the problem of logistics, while greatly reduced by the mobility plan is an ever present burden on the six full time faculty members. One major drawback to this plan has been the student exposure to a very limited group of faculty. When the microwave system became available, the possiblities for program enhancement became apparent.

The first courses were taught on microwave during the Winter quarter of 1983. The following academic year, nursing faculty were introduced to the system. The faculty's first exposure included a demonstration session and a hands on experience. The overall reaction was favorable, despite some misgivings about using the system for courses with a clinical component. The nursing faculty made a committment to utilize the microwave for instructional purposes.

The microwave system is a two-way interactive video communication linkage between two or more locations. It is part of an on going data system connecting the main campus of Ohio University with the various regional campus sites. This system, largely financed by the university includes telephone and computer interfacing. The goal of the microwave system is the sharing of human resources, primarily faculty, throughout the larger university system. It is the only instructional microwave system presently in use in the state of Ohio.

The microwave system is located in the Telecommunications Center at Ohio University. At the present time, the system is fully operational at the Lancaster campus and the Ironton campus. The Belmont campus system should be on line by Summer quarter. As the technology in this field improves, the sophistication of the newer equipment at the remote sites tends to make the original system on the main campus appear primitive by comparison. Although it is possible to interface all three operational systems, some refinements are still needed. Fall 1987 is the target date for implementing this aspect of the interactive system. At that time, it will be possible for one faculty member to telecast from a given classroom studio, while interfacing with students in two or more remote classroom studios.

While each classroom studio varies slightly, the basic set up is fairly standardized. There is a control room on the main campus where the technical aspects of the telecast are handled by operators. There is a podium in each classroom equipped with a control panel. Although this control panel may appear somewhat intimidating at first, it is actually quite simple to operate. By means of the control buttons, the faculty is able to regulate incoming and outgoing signals, control the volume and operate the podium camera and remote control cameras. Microphones and monitors are strategically placed to provide good audio-visual communication between the faculty and students. At the remote sites, there are large screens on which the televised images are projected as life sized.

The monitors provide students at the remote site a view of the faculty, a view of the students at the main campus and/or a view of any films, slides, etc. Thus, students at the remote site, by looking at different monitors have a fairly good idea of what's occuring at the telecast site. At the main campus studio, the faculty can view students at the remote site from a podium monitor or one of the other monitors in the room. There is a similar set up in each classroom studio. Podium cameras, operated by the faculty can be used to project images from books, diagrams or drawings placed on the podium. With this camera, the faculty can zoom in for close ups or pan out for an overall view. It combines the best features of the opaque projector, the overhead projector and the blackboard. Faculty can use marking pens on newsprint to outline their presentations. There is a slide projector under each podium which can be operated by means of remote control buttons. There is a podium microphone, but use of the lavaliere mike permits the faculty more freedom of movement while lecturing.

Among the policies established for use of the microwave system, was requiring the faculty of record to telecast the course from the remote site at least twice each quarter. As the popularity of the system increases, faculty have found that they must reserve space far in advance for use of studio time. There are designated contact persons at each site, who are available to set up the studio at the beginning of each telecast. These individuals are not always present during the telecast, but are generally close by should the need arise for technical assistance. A telefacsimilie, located in or near each studio, can be used to transmit messages or written communication between sites. Telephones are also convenient to the studios.

Use of the microwave system has several advantages. It facilitates a more effective use of limited faculty resources. Courses, which may have otherwise been cancelled due to low enrollment, can now be offered to small groups at several sites. The equipment is easy to operate. There is an ongoing and open channel of communication between sites, with no telecast delay or use of telephones required. An easy exchange of information between student groups and faculty is possible. Early visits to remote sites each quarter is one way to establish rapport with students who would otherwise spend most of their time watching a professor on a screen. The technology permits a wide variety of audio-visual information to be transmitted between groups. Presentations can be preserved on tape, for viewing by students at a later date either as a refresher or to review content they may have missed. Presentations can be pre-recorded for later telecast whenever faculty cannot be present.

There are some disadvantages to the system as well. The logistics of transporting course materials continues to be a source of concern. For courses with a clinical component, equipment such as stethescopes, sphygmomanometers and opthalmascopes must be transported to the remote sites. For these clinical courses, clinical assistants must be identified in the various regions. While students in several sites have contact with the faculty member, the students themselves rarely have any personal contact with those at the remote site. Some faculty believe that the quality of the interaction with students is compromised by use of the system. Lack of eye contact with students at the remote site is a common problem. If there is a large class at the remote site, rapport is made even more difficult since only a portion of the students may be visible at any given time. In a large class, individual students appear quite remote on the monitor. Without a full time operator at these sites it is difficult at best to visualize facial expressions or determine which students are posing questions. When students are seated too far from the microphones, their questions cannot always be heard at the other location.

Teaching by microwave requires some adjustments on the part of the professor and the students. Advance planning is critical. Faculty need to be creative and flexible in their use of teaching strategies. Early contact with students at remote sites is crucial. Another excellent time to be with students at the remote site is during an exam. This not only provides opportunities for students to pose questions prior to the exam, but alleviates some of the anxiety normally associated with test taking. The professor can give immediate feedback to these students who may otherwise feel isolated.

Methods for involving all students in discussions or demonstrations need to be devised. Students need to be reminded to sit closer to the cameras and the mikes in order to be seen and heard. When student presentations are a part of each class, the individual students can sit or stand at the podium, thus affording everyone a better view. Demonstrations are a common part of the clinical courses. Students at each site can work in pairs and give return demonstrations, close up, which can be critiqued prior to actual clinical practice with clients.

Faculty, teaching by microwave, should be cognizant of their appearance and delivery. They should arrive early to set up their materials, the technical details are usually attended to by the operators. Any special needs should be relayed to the staff prior to class. For instance, any tapes or films requiring special equipment must be set up in advance. When group activities are part of the session, the operator will need to know where to focus the camera(s) for the best view.

Unlike a typical classroom, the professor must remember that eye contact with the students at the remote site is facilitated through a camera image. For that reason it is important to look at the camera frequently, not just the monitors. Otherwise, students at the remote site may see only your profile or the top of your head. A list of those students at the remote site should be kept handy. Call them by name, even if you cannot identify their image on the monitor, and involve them in the discussion as much as possible. Pause after important points are made and seek immediate verbal and visual feedback from the students at the remote site as well as those in the classroom. Eventually, the technology will become less intimidating.

Some students and faculty from the nursing program have been using the system for several years now. These students are as adept at operating the equipment as the faculty. Students new to the system continue to be somewhat inhibited by the technology. The interest in the system is overwhelming. It is not unusual for groups to tour the control room or sit in on classes in order to get a "feel" for the technology. Others have been interested in student and/or faculty responses to this type of instruction. The results of a recent survey should provide some valuable insight into the students' perceptions of the microwave as an instructional system.

FIGURE I

OHIO UNIVERSTIY
COLLEGE OF HEALTH AND HUMAN SERVICES
SCHOOL OF NURSING

IDEAL MOBILITY PLAN

	Fall	Winter	Spring
Region I			
Belmont/Zanesville	*300	320	340
	310	330	360
	400	420	440
	elective	430	460
Region II			
Chillicothe/Portsmouth	320	340	*300
	330	360	310
	420	440	400
	430	460	elective
Region III			
Athens/Lancaster/ Ironton	340	*300	320
	360	310	330
	440	400	420
	460	elective	430

*Indicates the beginning of the nursing major sequence

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EXECUTIVE EDUCATION: CURRICULUM OF UNIVERSITY BASED PROGRAMS AT PUBLIC GRADUATE COLLEGES OF BUSINESS ACCREDITED BY THE A.A.C.S.B.

Fred Maidment

The decline in college enrollment has lead to a decline in the traditional financial support for post-secondary education in both the private and public sectors. There is one area of post-secondary education, however, which has experienced growth over the past several years and is expected, generally, to continue to grow for the foreseeable future--executive education. (Maeroff 1979). There have been estimations that the cost of corporate post-secondary education could be as large as $40 billion per year (Eurich 1984) which alone would represent a significant part of post-secondary education when compared to the $72 billion appropriated for higher education in 1981-1982.

Significance of the Research Problem

Many large universities are engaged in executive education programs. This education is often carried out as an activity of the graduate arm of the school of business administration. Often a university establishes an institute or some other administrative unit to conduct such programs. Executive education programs such as these are important to the university for five reasons: (a) they help establish and maintain contacts with the corporate world; (b) they give faculty exposure to business; (c) they assist the university in faculty development; (d) they operate at a profit, bringing in additional funds to the university in the form of fees; and (e) they enhance the reputation of the university among a potentially large source of financial support.

Delimitations of the Study

This study is concerned only with the curriculum of university-based executive education programs at public institutions accredited by the AACSB a the graduate level. The study was not concerned with training programs which were developed by firms themselves or with regular degree programs of the universities.

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The study addressed the curriculum of programs as have been developed for executives by universities which offer graduate degrees in business administration. Universities which are private, not AACSB accredited, or do not have programs in business administration have been excluded from the study. There were 142 public institutions accredited by the AACSB in the Fall of 1984 at the graduate level.

Overview of the Literature on Executive Education

The literature on university-based executive education programs can be found in two sources: (1) the literature on training and development in industry; and (2) the literature on continuing education.

Industrial-Oriented Literature

The first category was taken from corporate literature. This literature was essentially "how to" in nature and often was concerned with the problems associated with training people inside the corporation.

The literature concerned with the training of people inside of the corporation was found in such publications as Training, Training and Development, Personnel Management, Human Resource Management, Industry Week, Organizational Dynamics, as well as in occasional articles in various trade publications relating to specific industries.

Academically-Oriented Literature

There has been increasing interest in executive education over the past several years in academia. Several studies have been conducted in the form of dissertations. These studies have concentrated on: educational programs in the private sector available in particular towns and cities (1983); the degree programs offered by corporations (Baker 1983); evaluation of short-term training programs for industry and government (Lowey 1983); development of techniques to measure teaching effectiveness with adult learners, (Brown-Parker 1983); the scope of university-based executive education programs for executives at doctoral granting institutions in business (Maidment 1983); adult educational motives (Lawson 1983); methods to access training needs (Beaudin 1983); and measurement of the impact of learning theory in the corporate environment (Collins-Bondou 1983).

As can be seen, this is a very recent phenomenon. Prior to this time only a few articles per year were published. It would seem that academia has discovered a relatively dormant area of research which is about to be investigated.

In addition, there have been several articles and proceedings dealing with executive education in the past year focusing on executive education at doctoral granting institutions (Maidment, 1985b) and their curriculum (Maidment 1985)

Procedures & Methodology

This study addressed six principal questions.

(1) What was the curriculum content of the programs?
(2) What was the typical program format?
(3) What type of media was used for the program?
(4) Where were the programs normally held?
(5) How did the clients evaluate the program?
(6) How were the clients evaluated?

Sample

This study consisted of a survey of the deans of the colleges of business and administration of the 142 public universities accredited by the AACSB at the graduate level which offer a degree in business. A rate of return of 66.1 percent was obtained which was considered an acceptable sample so that the results of the study could be general.

Description of Instrument

The instrument was a questionnaire which was sent to all universities included in the sample. The questionnaire was a slightly modified version of the "University-based Executive Education" questionnaire (Maidment 1983).

Procedure

The sequence of activities of this study was as follows:

(1) The instrument and other appropriate materials were sent to all institutions in the sample. This mailing included a letter of introduction and an explanation; the instrument, and a stamped addressed return envelope. This mailing was sent to the dean of the business school.

(2) The next step was analysis of returned data. All responses were averaged, and descriptive statistics, including frequency distribution, means, and standard deviations, were computed.

Responses to each question on the questionnaire were summarized. For each of the forced response questions, the frequencies and proportions of responses were calculated. A profile of the typical curriculum of university-based executive education programs was described.

Findings of the Study

The rate of return for the study was 66.1 with 94 out of 142 institutions responding. Of those responses 51.06 percent indicated they had an executive education program.

Curriculum Content

Question 1 was: "What were students goals (curriculum) for the programs?" There were seven possible categories which the respondent could indicate. These responses were accounting, marketing, finance, quantitative analysis, management, computers, and other. While it was understood that nearly all programs had a managerial focus, the most popular area, as indicated by the respondents, was management. It should be noted that a particular program could focus on more than one aspect of curriculum content. For example, finance and marketing could be combined into a seminar on the marketing of certain financial services. For all programs at the 51 institutions which indicated executive education programs, on the average, 13.89 percent were in accounting; 13.85 percent accentuated marketing, 16.31 percent dealt with finance; 5.75 percent involved quantitative analysis; 33.50 percent included management; 13.41 percent contained computers; and 3.25 percent utilized other areas of curriculum.

Some of the other areas of curriculum indicated by these institutions were:

Writing
Time Management
Secretarial
Public Utilities
Small Business
Communication
Human Resource Management
Economics
Business/Government
Strategy
Production
Operations Management
Textiles
Organizational Behavior

Program Format

Question 2 was "What was the typical program format?" The most popular program formats were seminars, and lectures with 38 of the institutions reporting the use of these types of program formats. The least popular was experimental with only two institutions reporting the use of this type of format five percent of the time. The seminar format was used 37.16 percent; 26.61 percent of the programs used the lecture format; 10.43 percent used games; 15.89 percent had small groups; 3.29 percent utilized programmed instruction; 2.30 percent involved individualized instruction; 00.16 percent included experimental approaches in the format; and 4.02 percent used other forms of program formats.

Programs Media

Question 3 was "What type of media was used for the programs." Two types of media equally demonstrated the most popular form in terms of number of institutions utilizing them, lecture and audio-visual, with 40 institutions each indicating the use of these particular forms. Print and Electronic devices were also popular with 31 and 25 institutions indicating their use respectively. Print was utilized 26.87 percent of the time; Lecture was utilized 36.87 percent; Television 2.99 percent; Audio-visual 25.27 percent; Electronic Devices 6.73 and Other Types of Media 1.22 percent.

Program Site

Question 4 was, "Where were the programs normally held?" Many institutions held their programs at a variety of sites including a center, other university facilities and off-campus: 38.24 percent of the programs were held at a regular center; 19.89 percent were held elsewhere on campus; and 41.75 were held elsewhere, usually at a hotel with meeting facilities.

Evaluation by Clients

Question number 5 was, "How did clients evaluate the program?" Thirty-one of the programs indicated that there was a standard evaluation utilized in their programs while 15 indicated a separate evaluation by the participants and 2 of the programs did not engage in any form of evaluation on the part of the client.

Evaluation of Clients

Question number 6 was, "How were the clients evaluated?" Thirty-five of the 48 responses indicated that they did not engage in any evaluation of clients. Three reported to the sponsor. Four reported to the participant and only six reported to both the sponsor and the participant.

Summary and Conclusion

The findings of this study would seem to indicate that curriculum of the university-based executive education programs at AACSB accredited institutions is fairly traditional, relying on the usual divisions of the business curriculum but with a heavy management focus. Indeed, management itself demonstrated the greatest degree of popularity with over 33 percent of the curriculum. The seminar was the most popular program format while lecture was the most popular media. It was interesting to note the institutions are not reluctant to take the seminars off-campus with over 41 percent being offered at remote sights.

Finally, in the area of evaluation, most of the institutions sought evaluations of their programs by the participants, but did not evaluate the participants; a complete reversal of the usual situation at a university. This could, perhaps be explained by the fact that the clients of university-based executive education programs were not a captive group; while it could be argued that the regular students, to a greater degree, are. It is not the institution and its professors who decide whether the instruction has been a success, but the clients.

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AUDIO TELECONFERENCING
A LOW COST TOOL FOR PROVIDING EDUCATIONAL SERVICES TO RURAL AMERICA

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Delivery of educational services to adults in rural areas has always been a difficult issue. The fundamental problems of meeting minimum class sizes, locating qualified instructors, achieving quality and excellence standards and maintaining the transferabilty of academic and vocational coursework to other institutions continues to plague rural education.

Satellite, microwave and cable television are all technologies that can provide answers to some rural delivery questions. However because of low student volume, costs of hardware and installation, these often end up being very expensive solutions with marginal justification. Major expenditures for extended programming are difficult to come by for many community colleges because of the priority (or lack of priority) that is given to off campus endeavers. With funding limitations that have occurred in most states during recent years, capital and development resources have been in short supply and generally have ended up in allocations for campus based programs.

These limitations haven't changed the facts though; the need for delivery into rural areas still is a pressing issue. So the question has become "Is there a way to deliver campus based programs into isolated rural areas while at the same time maintaining cost effectiveness and quality?"

An exciting answer to this question is being explored at a satellite campus of Community Colleges of Spokane, located in rural northeast Washington State. Community Colleges of Spokane (CCS) is one of the largest (geographically) districts in the United States. Its boundaries encompass six counties, covering over 12,000 square miles of relatively sparsely populated land. The southern three counties are primarily wheat land, with the northern three counties being quite mountainous with farming and timber based economies.

Spokane, with a population of 187,000 serves as a geographic hub of this area. The surrounding counties add another 90,000 who need educational services. CCS evolved

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and now includes two campuses, Spokane Community College, with primarily industrial/trade/vocational programs, and Spokane Falls Community College, with primarily liberal arts and vocational programs. The CCS Institute for Extended Learning was created to serve the areas outside of metropolitan Spokane. Satellite campuses, one at Fairchild Air Force Base on the west edge of Spokane and one centrally located in the middle of the three northern counties at Colville Washington, provide the backbone of the delivery of coursework in the outlying areas.

The community college campus in Colville serves almost 6,000 square miles of mountainous, isolated terrain. During the sometimes severe winter months access with the outside world is often limited due to snow and narrow icy roads. In order to meet the needs of people in the rugged areas surrounding Colville, the center began experimenting with teleconferencing in the spring of 1984. On the other side of Sherman Pass, the highest mountain pass in Washington state, lies the little gold mining town of Republic. This classic little community reminiscent of mining towns of past generations is located 55 miles from Colville and over 120 miles from Spokane. A Colville phone line extending to a classroom in a rented store front in Republic provides the necessary teleconference linkage. Using AT&T Quorum tele- conference equipment, lecture oriented classes that are offered at the Colville Center can now be offered over the telephone lines to students in Republic. Students are enrolled as adjunct students to the Colville classes. Because it is a two-way interactive system, students in Republic have the ability to have dialog with students and the instructor who are in the Colville classroom. In the event that a qualified instructor is located in Republic, classes could just as easily be initiated there and extended the opposite way to Colville.

With the help of grants from local business and industry, the Colville Center is expanding this teleconference delivery model to include additional locations. Already in the 1986-87 school year the program has been extended to Inchelium, located on the Colville Indian Reservation.

Rumors about the success of the concept have circulated excitedly on the area "grapevine". Already other small communities such as Chewelah, Ione, and Newport have made inquiries as to when the service can be offered in their communities.

In addition, grants have provided the opportunity to enhance the audio- system with Optel Telewriter III, a hardware/software package which provides interactive computer graphic capability that can be used simultaneously with audio. This capability gives the instructor the ability to have an electronic blackboard and image transmission. Handwritten comments can be made using an electronic tablet, and an electronic pointer can be used to refer to items on the screen; the instructor can also use the computer keyboard to make typewritten comments. In addition, because of the systems digitized image capture capability, instructors can make graphics or capture pictures, charts, etc. from reference materials and transmit this information to their classes. Students in the remote locations have the same hardware, and an electronic bridge allows all locations to interact with each other. To facilitate the exchange of written or printed materials each location is served with daily UPS delivery service.

Initially administrators and instructors were concerned over whether students in the remote locations would be handicapped because of their inability to see the instructor. Over several terms quite the opposite was found to be true. Much to the surprise of instructors, students in the rural locations consistently earned higher grades than those who are in the classroom with the instructor. How could this be? Tests are proctored by a college facilitator in each remote location. No special considerations are given to the remote students. At first, it was puzzling, but after months of study on this issue, instructors are now in agreement that the rural students develop superior listening, out-lining, and study skills, and have a higher level of desire to succeed because of their limited access to educational services.

While the concept of the electronic classroom has been around a while, this system is unique in that it uses a single voice grade dial-up phone line for simultaneous audio and data transmission, keeping line costs to a minimum.

Classes in Psychology, Humanities, Business Management, Early Childhood Development, American History, Literature, Politics, English, Personnel Administration, Geography, Introduction to Business, Accounting, Business Law, Business Correspondence, Ethics, Logic, Speech, Money Management, and Home Schooling have all successfully been offered over the audio conference network. Additional grants from the State Board for Community Colleges and from the Perkins Act - are providing funds for curriculum development for new classes and curriculum enhancement for existing classes. Other grants have provided for the development of teacher training materials and a video tape presentation of the teleconference system and program.

The system is in operation from 8 in the morning until 10 at night. with very few unused hours. This keeps the cost per hour very low. Non-credit community service classes are also offered using the network. All of these factors blend together to provide a low cost, powerful communication system that gives considerable flexibility and capability for meeting rural needs. Using this system, students in the rural areas can be enrolled in existing classes at the Colville Center, thus doing away with the problem of low enrollments in the rural areas. Existing highly skilled instructors are in effect taken to the isolated areas over the phone lines, providing high quality instruction in areas where finding qualified instructors is generally a problem. Using this system students in isolated areas can have access to many of the same services that a student going to school on campus would have. For example, veterans and financial aid advising can be provided over the teleconference line. Students can participate in student government on the network, and requests for library services can be channeled over the phone system. Another positive side benefit is that students in classes using this technology have a built in opportunity to become computer literate in a natural environment. The system provides continuing reinforcement through the day to day practical application of the skills that are used in each classroom session.

The Colville Center's teleconference system is an exciting project which effectively demonstrates through the blending of resources, technology and expertise, how communities, business and industry, government, and community colleges can work together to achieve delivery of educational services to a special population. Whether rural students participate in a class for their own self improvement or in preparation for further schooling, the teleconference system meets their needs for both quality education and interaction with fellow students and instructors. The system also demonstrates that there is a cost effective way to deliver campus based programs into isolated rual areas.

THE ELECTRONIC SEMINAR: DISTANCE EDUCATION BY COMPUTER CONFERENCING

Lowell Roberts

Imagine teaching in an environment where students whisper to each other while class is in session, then meet privately to continue the discussion. This may sound familiar, only the whispers carry across many miles, and the conversations focus on the assignments, class discussions, or a student's research. Sometimes the students even include the instructor. In this environment everything said is recorded, and a challenge to something said a month ago is not uncommon. Students always come to class prepared, and they all contribute to the seminar.

I teach in such an environment, although sometimes it doesn't feel like teaching, more like conversation among colleagues. Class meets any day, often at odd hours. It is attended by a business executive, a quadraplegic, a writer, a traveling salesman, an out-of-work welder -- a typical assortment of participants in an electronic seminar who come from Buffalo, New Haven, St. Louis, the Adirondack Mountains. We meet in our homes by computer conference.

The Center for Distance Learning of Empire State College, a unit of the State University of New York, is piloting on-line study by offering a course in contemporary American diplomacy entirely through computer communication. The Center ordinarily teaches by tutored independent study, where students, following detailed course guides, learn on their own and through frequent contact with expert tutors. Although guided independent study at a distance can be a highly successful learning experience for many students, it cannot provide the advantages of group interaction. We decided, therefore, to experiment with the interactive capabilities of the computer, namely electronic mail and conferencing.

In the three months that the pilot has been on-line, we have already concluded that computer conferencing can extend many of the learning opportunities of the classroom to distance and independent study. And using these computer

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utilities does not jeopardize the intensity and flexibility of studying on one's own. If anything, the computer appears to enhance independent study by providing peer stimulation and resources.

The students have accounts on the College's Digital VAX 11/750 that permit access only to a conference called AMERDIPL. The conference software is CAUCUS version 1.28/VVe developed by Camber-Roth, Inc. and distributed by Metasystems Design Group, Inc. Class is conducted through a series of items initiated by the instructor to which all participants can post responses until the instructor terminates the discussion. Papers are submitted by E-mail within the conference, a utility that is also used for private messages between the instructor and students and between students.

Although our experience is admittedly limited, we know that course delivery exclusively by computer -- no meetings of any kind in the traditional sense -- is not only feasible, but an exciting alternative pedagogy. Since this on-line version of American Diplomacy was adapted from an existing distance course, it did not incur major developmental or start-up costs. However, since distance courses generally require substantial front-end investment, delivery by conferencing should not add significantly to the cost of distance education. And if campus overhead is considered, the electronic seminar may ultimately be much less expensive than traditional pedagogy.

We know, too, that the students feel a genuine excitement about participating in the conferences -- one student spoke for us all, I think, when he signed off on his response to another student (who had questioned his interpretation of U.S. relations with Latin America) with, "Damn, this is fun!"

Compared with the performance of previous classes, the written work submitted by this class appears, so far, to be superior, both as to breadth of research and quality of analysis. This was demonstrably true in the case of one assignment which was identical to that of the previous, non-computer class. That this is the result of instruction by conferencing is certainly not conclusive, since the students who elected to take the pilot may be a select group from which superior performance would be expected in any case. However, students do use the conference to test out ideas on the class that later appear in developed form in the papers. They also use the private message function to raise questions with the instructor and to discuss their work with their classmates.

Teaching by conferencing overcomes the most serious disadvantage of independent and distance learning: it breaks down the isolation of the student from his peers. It permits the student to benefit from the shared experience of a group engaged in the same study and the opportunity to measure his or her ideas against those of others in the group. This pedagogy also has advantages over the traditional classroom. The conference maintains a complete record of all that is said. This record can be reviewed at any time so that participation and discussions can be summative, rather than discrete. Finally, conferencing is asynchronous, so time and distance deprive no student of access to learning.

Will the electronic seminar replace the traditional classroom? No. Many of us like to go to class; we find physical contact with our peers fun and, occasionally, even stimulating. In addition, without that captive audience, the egos of too many faculty would suffer serious deprivation. But as the national student body becomes proportionally more adult and students increasingly less committed to institutions of education, colleges and universities are going to have to adopt new learning environments (see, e.g., Cross: 14-15). The question is will we continue to maintain the campus classroom as an ideal, if seldom used, model or will we create environments that incorporate the advantages of both classroom and non-classroom learning.

> Telecommunications holds the promise not only to fulfill the older notions of university extension and outreach, but also to bring to the distance student that quality of education associated with traditional campus instruction at its best. Such quality will be possible because, for the first time, the faculty and resources of the university can be made available practically to the off-campus student. (Hall: 26)

If electronic pedagogy is so promising and the growing need for alternative pedagogic delivery systems so apparent, why aren't we all being wired to an instructional network? The obvious reason is that many of us are not convinced of the utility of that promise, one we see as costly, exclusive and threatening to the dialogue of learning. A recent article by Christopher Knapper, for example, identifies three educational uses of the computer. It can be used to enhance and complement teaching; this, says Knapper, has proven effective but very expensive. It can be a student-centered learning tool, a use with great potential but with a risk to insight and understanding. The computer can also be a primary instructional delivery method, but one whose application is largely limited to distance learning and special groups.

Knapper's portrait of the uses and potential uses of computers in higher education is probably an accurate picture of the attitudes of most faculty and administrators. But it is an incomplete portrait, based on a limited idea of the capabilities of the computer. We tend to view the computer as a technological thing and, therefore, sense that its educational applications must be technologically exotic. An otherwise excellent recent article on teaching by computer mediated communications, for example, claims that instructors must master technically advanced conferencing features, such as graphics, if they are to effectively teach by computer -- knowledge requiring 30 to 50 hours of on-line experience. (Hiltz: 103)

If we view the computer as an environment, however, it can assume the same educational role as the classroom, studio or laboratory. It is a pedagogical stage on which the set (chalkboard or graphics) merely supports the instructor, the students, and the content of the course. Granted, movies and overheads can enliven a class -- as can graphics -- but if they become the focus of the course, little learning takes place. We all know that the best class we ever had was one in which the instructor challenged us and provoked us to challenge back, and sometimes a whole meeting would pass without one word being written on the board. Effective computer conferencing works the same way.

The technology fallacy is also expressed as a fear that the computer will replace the teacher or that teachers will overly rely on computer-mediated teaching. The result, according to this argument, will be to diminish students' comprehension and understand ing of ideas and processes.

> Technology, in whatever form, should not be allowed to erect barriers that isolate teachers from students, or to restrict creative thought, or to hamper the free flow of ideas from one person to another. . . . But television, calculators, word processors, and computers cannot make value judgments. They cannot teach students wisdom. This is the mission of the undergraduate college, and the classroom should be the place where students are helped to put their own lives in perspective, to sort out the bad from the good, the shoddy from that which is elegant and enduring. For this we need great teachers, not computers. (Boyer: 173)

An environmental view of computer mediation concurs that technology should not interfere with the teaching process, but it does not agree that only students fortunate enough to be able to sit in classrooms should have access to great teachers. In its conferencing mode the computer can erect a bridge, rather than a barrier, between student and teacher.

Put simply, the computer is another place -- often less expensive to get to and maintain -- where teacher and students get together to learn. Thus, the electronic seminar has the potential to alter dramatically our structural notions about higher education by allowing the dialogue of learning to occur in an environment populated by independent learners.

Perhaps the most significant change that computers will bring to higher education will be the freeing of learning from its historical constraints of time and space. Already, educational software can effectively instruct and train, and commercial networks can provide access to databases that, together, far exceed the information available in any university library. And the instruction and information are available when and where the learner wants them.

Computer conferencing adds another dimension to this asynchronous pedagogy. It frees the classroom, itself, from time and space. If anyone can attend class at home at midnight or at work during the lunch hour, our traditional definitions of students and school are no longer really meaningful.

Over 2500 years ago Pythagoras founded a school in southern Italy, and western youth have been "going to school" ever since. Our concepts of class (a group seated, facing a standing speaker) and student (we say adult student, but never youth student) have changed little. Indeed, the only truly revolutionary change in education since Pythagoras was movable type, invented some 500 years ago. Printing permits students to learn "even from teachers who were no longer living." (Heuston: 7) Movable type made knowledge universal, rather than local.

Still, the dialogue of learning has to occur in a place. To discuss with others what one has read, to be directed to alternative or more advanced understanding of what one has read, the student must leave his or her place of reading and gather with peers and instructor in a place of discussion and lecture. But with computer conferencing students no longer need a spatial, temporal point to exchange ideas and work with teachers. The electronic seminar frees the academy to meet in each student's own time and space -- if educational institutions are willing to define themselves in terms greater than their campuses.

> [C]olleges and universities may have to decide whether their concern lies with institutions as defined by bricks and faculty or with the content of a body of knowledge and how it might be learned, wherever and whenever that can best be done with the help of the new information technology. (Fisher: 40)

To be fair, Ernest Boyer reminds us that a similar prediction was made for television, but that expectation has remained largely unfulfilled. (Boyer: 170)) There is, however, a difference. Television is passive -- the very nature of the medium denies the student an opportunity to participate in his or her own learning. The computer is active. Unlike television, which can only present to the student, the computer can only work with the student. It is individualized, interactive and diagnostic. And through networking and conferencing the computer is out reaching.

The electronic seminar does differ from the classroom seminar in a few significant ways. The nuances of non-verbal communication are, for the most part, lost. As one gets to know one's classmates, emotion and personality emerge on the CRT to a surprising degree, but body language is not transmited. On the other hand, verbal communication is not lost; everything that is said can be preserved for as long as the conferees wish and reviewed by anyone in the conference at any time. No worthy idea is lost because the instructor failed to pick up on it at the moment it was expressed. Equally, misstatements are not forgotten.

Other differences, too, seem to favor the electronic medium. Conferencing is egalitarian. Unless the instructor technically restricts student input, every participant has an equal opportunity to be heard and to be ignored (scrolled past), so the value of reasoned argument and careful, concise exposition are quickly understood. Class cannot be dominated by the more aggressive students. Those who shoot from the hip or talk just to be noticed tend, I think, to feel pressure to be more thoughtful, since the record shows that no one is responding to their inputs. Those whose thoughtfulness or shyness often exclude them from timely participation in classroom discussion can set their own time and pace. A common AMERDIPL response includes a phrase like: "I'll be back after I give this more consideration." The AMERDIPL experience also indicates that the electronic seminar generates more interaction among members of the class and a greater proportion of student participation compared to that of the instructor. Content analysis of other conferenced courses supports this impression, indicating that between 66 and 83 percent of the conference lines are contributed by students. (Hiltz: 101)

Although the students participating in the AMERDIPL pilot were screened for comfort and familiarity with computers (only one, however, was experienced in computer-mediated communication), our impression is that, after an initial period of caution, most students will not feel inhibited or anxious about taking part in electronic discussions. In fact, Hiltz (98-99) reports that undergraduates whom she surveyed felt that on-line courses increased motivation, were more interesting, made them feel more involved, and were better learning experiences than courses that were not delivered by conferencing. Hedlund and Casolara also found little evidence of anxiety among psychology students simulating laboratory experiments by computer. These findings should not be surprising since nearly three-quarters of the country's undergraduates think their colleges should require more computer courses. (Boyer: 168)

Empire State College's experience with the electronic seminar has been singularly positive, but the AMERDIPL experience has indicated some aspects and implications of teaching by conferencing to which replicators should pay careful attention. For example, the computer is generally used to aggregate, in some manner, discrete input. Participants in a conference often approach this application in the same way, expecting that each individual's contribution will somehow be synthesized into a coherent whole. The egalitarian nature of conferencing, however, treats each input discretely, and the participants must make the linkages that bring coherency to a discussion. This isn't really different from any group discussion where each person wants his or her ideas heard before s/he listens to others. Instructors of electronic seminars cannot rely on the computer to direct, synthesize or moderate discussion any more than their classroom counterparts.

The individual, learner-directed nature of computer mediated education and individual, undisciplined access to information through the computer may decrease the shared knowledge of our society. (Fisher: 45) Arguably, it is the common lore of our culture, pluralistic though it may be, that makes us a people rather than a collection of individuals or small groups. I believe that conferencing, a group learning environment, mitigates this tendency of other pedagogical applications of the computer, but conferencing may exacerbate it. Responses by AMERDIPL students sometimes resemble monologues, rather than discussion. Since conferencing is asynchronous, entry can be its own immediate, unchallenged reward.

Developers of electronic seminars must also be sure that the medium, content and instructional objectives are, as Diana Laurillard says, a "pedagogical fit." Referring to computer mediated instruction in general, she cautions "There are many examples...where the question 'Couldn't you do the same thing more efficiently with a text...'would be an embarrassing one." (Laurillard: 11) After the initial excitement of attending class by computer, students will not sustain the seminar by themselves if the subject or the instruction cannot sustain it. In this regard, again, the electronic seminar is not different from the classroom seminar.

Finally, we learned from AMERDIPL to keep it simple. Students who enroll in a teleconferenced course are probably sufficiently sophisticated computer users that the operating system need not be simplistic. However, the objectives of an electronic seminar are not found in the medium but the content. Even experienced conferees or bulletin board users are rarely interested in multiple-level command structures or high-level editing and graphics functions. The conferencing system should facilitate participation and dialogue. Empire State College students receive a single sheet of CAUCUS commands and a half page of instructions about accessing the VAX, no training or manuals. Problems are addressed by E-mail or a telephone call to the instructor or conference technician.

Computers have tremendous potential for inclusion -- of the world, perhaps, through our keyboards. Unfortunately, computer applications, as if by some natural law, often tend toward exclusion. Conferences that require mastery of the arcania of operating systems -- mere bells and whistles in the context of the subject of the conference -- will fail. They will fail because they make the computer the object, rather than the environment, of the learning. We don't study the classroom in American Diplomacy.

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"CAC" COMPUTER ASSISTED COMMUNICATION ANY EDUCATION WITH A PC CAN HOST A CONFERENCE

Edward M. Wondoloski

THE OVERVIEW

Communications technology using a PC (personal computer) and "CAUCUS", a computer conferencing software package, now provides the opportunity for any educator with a PC, telephone and modem, to host a conference.

CAC (computer assisted communication) provides a multi-dimensional approach to knowledge. This spherical theory displaces the "up and down linear ladder" concept with the concept of dimensional "in and out". (Glenn) To quickly grasp this concept, imagine yourself as a revolving sphere, now from your center point, wherever that may be, imagine an infinite number of rays extending in all directions, all with varying extensions and colors. Imagine each ray being a different aspect of knowledge. Imagine each ray as it extends as far as you have developed that particular aspect of knowledge. Imagine your knowledge ray of mathematics, and now add the ray of personal relationships, then art, and music. Keep adding these rays of knowledge. Notice how they complement each other, how they create a dance and long for further extension and synthesis to form the great white light. What you have just envisioned is the spherical theory of knowledge. This knowledge base theory is now further evolved through the CAC process.

Seven groups ranging between seven to ten students interact with each other in a collaborative fashion for the purpose of creating an informational product called "cultural smile" (Space Migration for Intelligent Life Extension). This informational product is a model that addresses the social, economic and political systems to be employed in space colonization, for the purpose of closing the gap between the human condition and the human potential.
An HP Vectra PC serves as the host computer for the communications network. Students with modems and PC's of all variations call into the host computer and a traditional educational delivery system is transformed into a virtual classroom, open 24 hours a day, 7 days a week, for asynchronous, dynamic interaction of human thought and creativity.

Robert Mueller, chairman of the board of A.D. Little, stated in an interview with the "Networking Institute",

> "Organizations as we know it are obsolete in the information society in which we now exist....... human networks are thriving while our staid and rigid organizations heave and struggle to be effective or even to survive. Something fundamental is happening in our organized society ....centered on the intuitive notion that somehow in some way networking may be the basic to organizing and managing people." (Lipnack and Stamps)

It was in this same intuitive spirit that Cultural Smile was initiated. Holding the belief, that some how some way networking

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through CAC was the key to providing high quality educational delivery systems, focused on self learning experiences.

Student reactions to this new media varied, but some responses were; increased motivation; felt more involved; a better learning experience; more student interaction; peer reviews were useful. Much still remains to be learned about this new delivery system along with its psychological effects, as academic and business communities both concurrently investigate this new potential for improved interactive communication.

This is the first of many experiments planned using this media. The purpose is to reach far beyond electronic mail and computer conferencing, by introducing the student to the experiential dynamics of the "electronic organization and expert networks". We are at the horseless carriage stage in development of CAC, with chat systems, e-mail. bulletin boards, computer conferencing, all visible and ongoing in our daily lives. At the threshold, something we have just started to experiment with is hyperintelligence systems, electronic organizations, and student expert networks, as distinguished from expert systems, all participating through electronically linked networks with decision support and related knowledge base systems.

COMPUTER ASSISTED COMMUNICATION - THE WHAT/ WHEN/ WHERE/ HOW

THE WHAT

CAC has developed over time to be the generic descriptor of the concept of electronic human organization or expert networks. There are however several levels associated with CAC. I present these levels here in the succession of their increased sophistication and additive encompassed features.

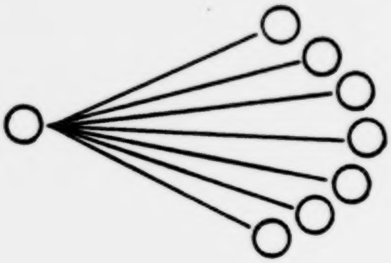
* Chat systems are distance independent - participants can be anywhere.
* Electronic mail (email) is time independent - no coordination of schedules is required.
* Bulletin boards are topic oriented - notes directed to topics, not people, are posted for the interested population.
* Computer conferencing extends topic structure with personalized activity tracking.
* Many to many communications adds topic branching, allowing subgroups to form organically.
* Electronic organization includes structural access options. Some applications examples are; project coordination of plans, tasks, teleconsultants; sales management, tracking leads, prospects, customers; customer service responding to inquiries efficiently; online markets involving buyers, sellers, dealers, financiers; interactive journals, co-authoring, on-line reviewers; distributed education via electronic lectures,and networkshops.
* Expert networks build knowledgebases through communication.

* Participation systems include dialogue/decision tools such as polling and modeling.
* Involvement extensions go beyond computer boundaries using hard copy print and other interactive media as extensions of on-line communication. Theobold's networking system is an example of such a system. (Stevens)

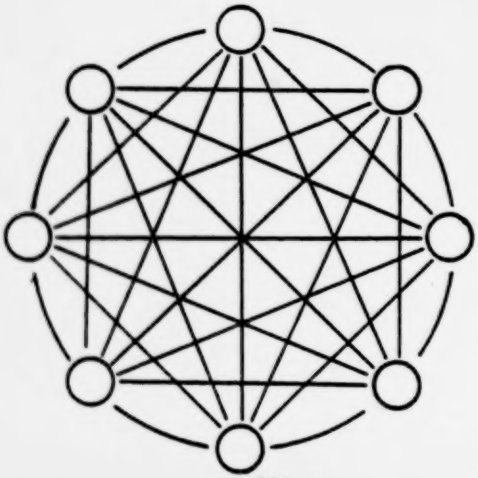
THE WHEN AND WHERE

CAC was introduced in the Spring of 1987, in an undergraduate course called "The Management of Planning and Control Systems". There were two sections that were involved in the experience. The class was charged with creating an informational product called "Cultural Smile". This product in effect was to serve as the model for the pioneering and development of space colonies. Political, economic, legal and social systems needed to be developed to support the model. These systems were then to be aligned with the class's overall visioned purpose for such space colonization and exploration.

The class formed into seven groups to facilitate the completion of the assignment. What normally under such circumstances might look like this;



Because of the use of CAC the above traditional structure was transformed into a virtual seven day a week inter-dynamic exchange that looked like the following;



THE HOW

The how that made it possible was the result of a "new engine" for the communications revolution. CAUCUS - A gem at the bargain price of $350, but with the Educom 50% discount , it was a steal at $175. As Frank Burns of MetaSystems Design Group, a pioneer in CAC stated,

> "The simple truth about CAUCUS caught our attention immediately when we first got our hands on a copy of the PC version. The PC version means that the technology for personal conferencing has arrived. CAUCUS is a richly designed and powerfully implemented computer conferencing program that can be installed on a PC. I understood the truth of CAUCUS right away it seemed. But I must admit however, the implications of the truth of CAUCUS has boggled my imagination more and more each day since we've had our CAUCUS system up and running. I can't keep up with the expanding ideas about CAUCUS applications that pop into my head every day. Our conversations at the MetaSystem Design Group have excited all of us." (Burns)

This piece of software is superior in design, easy to learn and use, easy to control, reliable, transportable, easy to customize, its fun and I love it! In addition to all the above it is easily upgradeable, is written for just about all PC machines. When the time is right here at Bentley, I certainly see it running on one of our 9500 Primes, and handling all the CAC needs for the entire Bentley Community. With the EDucom discount this would be a reality at the CAUCUS software cost of $3,500.

THE RESULT

An interactive communications and learning space was created. The traditional classroom was now converted into a virtual classroom, conducting business and resonating with energy seven days a week. The geographic and time zone restrictions were removed. This facilitated conducting the business meetings because students were able to check in at a time and place of their choosing. There were simultaneous discussions of different thoughts and strategies. Students were able to discuss a wide range of topics and the comments were automatically organized and retained under their respective topics. A printable record of the process was retained for subsequent review by the students. This greatly facilitated their preparation of individual learning reports.

Brainstorming and problem solving were being facilitated and supported. Creativity was enhanced by an environment which openly allowed for the suggestions to be considered. This opportunity to toss ideas around, play with them, develop and build on them, created a stimulating atmosphere for still further exploration and inquiry. A distributed form of learning took place. The relationship between the whole and each part of a network is different from that in a hierarchical organization. In a network, leadership and the ability to initiate activity is distributed among the parts which must be self-sustaining because there is no central authority to depend on. The Cultural Smile focus groups were the source of the projects activity and leadership. In fact, Cultural Smile is really defined by the activity of the focus group - each group was able to view who they are by looking at what they focused on. (Bunting)

The holon concept was evident in the Cultural Smile focus groups. They functioned as Parts/Whole. They operated independently and at the same time operated as part of the whole Cultural Smile network system. The term Parts/Whole, is used in relation to networks to reflect the idea that parts of a network - like Cultural Smile's focus groups - can operate independently and , at the same time , operate as part of the whole network system. The focus groups had developed separate agendas for action and pursued those agendas on their own. In fact , any one of the focus groups could accomplish a great deal even if the rest of Cultural Smile didn't exist. At the same time , each group is really working on a different facet of Cultural Smile's mission and can gain strength through working synergistically with other groups.

CAC - COMPUTER ASSISTED COMMUNICATION - WHY?

There is a need to review the beliefs and premises that underlie our current educational system. These beliefs and premises held by B. S. Bloom are:

- In any field there is a core knowledge that must be taught;
- Once the core is mastered, the capacity for critical thought can be taught.
- Deficiencies in any field are caused by a lack of instruction in the core, a lack of instruction in critical thought, or both, and can be corrected by the right faculty committee making the correct curricular decisions to fill in the gaps.

Now, Naisbitt has been quoted as saying we are currently in the midst of an informational explosion. Our body of knowledge is doubling every 20 months. Well folks at that rate of growth, guess what? By the year 2000, our common body of knowledge would have increased 512 times over what it is today. This statistic very seriously puts a strain on Blooms first premise. That premise being a core of knowledge must first be taught before critical thought can begin. We have a serious flaw in the underpinning.

Some faculty have coped with this dilemma by seriously and in many cases single handedly taking on the responsibility of sifting, sorting and distilling for the student. An assignment which leads to premature professional burnout and seriously questions the role of student in this whole process of information explosion. When does the student become self sufficient in ferreting out relevance from the maze of information ? Where and when does the student develop the necessary skills to process, sift sort and distill on his/her own account from the mounds of information which is gathering dust. We have truly developed the capacity to manufacture information in excess of our ability to consume it.

The above scenario reinforces the following paradox.

> "He had attempted to maintain a broad scope of the profession. He read every journal, attended meetings in several disciplines, and found that through the years he knew less and less about more and more, until he knew absolutely nothing about absolutely everything. His modern contemporates on the other hand took a different approach to the challenge, they specialized. They delved deeply into one narrow component of the profession. As they continued their studies they began to know more and more about less and less, until they knew absolutely everything about nothing. Through completely different routes, they had both arrived at the same destination." (Bushby page 16)

Does this scenario ring home folks? I sure know it did for me. Fortunately we do have other options available to resolve this informational paradoxical dilemma. One suggestion is a process oriented solution, employing the multi-dimensional spherical theory approach to knowledge base systems. Here students, in a guided process oriented environment, create their own model or system for employing their skills to sift, sort, and distill information. The professor rather than doing the work for the student provides the student with process systems skills which empower the student to perform, these functions.

One such process orientation model is presented by Robert Theobold in what he calls his Knowledge Systems Based Model. He contends and I agree that the current activity in human networking or Expert Networks, contains the genetic code for a profoundly different way of structuring knowledge. The problem being that we don't yet know how to understand it or work with it. But there again, is that not where all of our great technological breakthroughs also began? It is Theobold's belief to which I subscribe, that the following criteria are an essential beginning of a Knowledge System.

- the system which develops, will have to help people clarify the questions with which they are struggling rather than

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providing them with slick answers.

- in many cases the key skill will be the development of a broader context in which it becomes possible for discussion to take place between people who have very different views.
- once this broader context has been agreed as valid - in other words everybody accepts that we are talking about the right issues - it becomes possible to sort out the agreements and disagreements with some clarity.
- it is suggested this broader context occurs at the intersection of the social and the spiritual base.
- effective work can only be done when there is an attitude of hopeful realism - this implies that people are willing to look at reality and to realize that it can be changed by effective reconceptualization and action. These are two sides of a single coin - one of our current problems is the assumption that they are separable.
- any system of knowledge must be accessible at all levels (i.e. the spherical theory) and must draw people into other levels as fast as they wish to do so. But it must not force people to proceed faster than they can manage.
- there must be a mesh between heart and head activities, both hard study and emotional interaction are required for effective learning. (Theobold)

Computer Assisted Communication supports Theobold's model. CAC through its messages, notes and conferences, provides the opportunity for people to inform, question and touch one another. A community develops and along with all the rational content an emotional color and drama is evidenced. A personal empowerment comes to life, which facilitates the closing of the gap between the human condition and the human potential. The human potential, containing the ultimate core of knowledge through a simultaneous engagement in critical thought. A pure mastery brought about through the human genetic envolution.

THE FUTURE POTENTIAL

PC's have transformed the power of computers to the individual. Cellular communications technology will allow for individuals to communicate with one another without having to channel through large inhibitive communication systems. When we combine these two technologies and sprinkle in such economically powerful communications software as "CAUCUS", we have what Naisbit has termed "simultaneous globalization and individualization". (Naisbit) We will have the ability, through appropriate technology, to connect with one another throughout the world on a one-on-one personalized individualized basis. We are in an era of information explosion. CAC, a network of humans interacting with appropriate technology, can provide the expert networks necessary for the conversion of all this information into a meaningful and directive knowledge base system.

The participatory democracy at both the political and work level, which is currently emerging, will be greatly enhanced through the supportive opportunities provided by cellular communications. Differences will not only be an acceptable ingredient of our global culture, but will be the cornerstone for the envolution of an hyperintelligence. (Bugliarello) This dramatic extension of the power of the brain, facilitated by computer networks, will create a global holonomy. (Stamps)

The interconnection of these millions of computers with their users, is the initial step in our ability to sense, reason, and remember as a global community. The holon theory of parts/whole is certainly in evidence here. Consider the immense potential power of our global community network. We start with one human brain, where every node is a neuron, and expand that outwardly into a network where every node is now a human brain augmented by a computer. The potential is awesome.

In a free association of individuals, these nodal points become social, political and/or economic sensing devices. They create greater human awareness as people throughout the globe are connected and form an infinite number of subgroups through common interests, in a natural organic fashion. Through a consensus agreement of the issues, the massive power of this hyperintelligence can be employed in problem solving the life sustaining issues that confront humanity.

The electronic classroom will be expanded to include students from other courses, other institutions, and other countries. Interdisciplinary team teaching will be a natural outflow through this media. The opportunities are limited, but by our ability to visualize new creative applications.

? - and finally this broader context within which hyperintelligence functions, could very well be the vehicle which once again would unite humanity with the natural law. Thereby bringing humanity into alignment and balance with the gestalt of IT ?

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SATELLITE CAMPUS GRADUATE INSTRUCTION THROUGH THE DEVELOPMENT OF INTERACTIVE MICROWAVE EDUCATIONAL CENTERS

Linda A. Zurfluh, Ed.D. and Linda Reisser, Ed. D.

Statement of the Problem

Western Washington University is located in the upper northwest corner of the State of Washington. Its immediate geographic setting is predominantly rural. Although it is a moderately sized university, Western offers a comprehensive program of study at both the undergraduate and master's degree levels. Within the School of Education, there are a number of graduate professional preparatory programs. Problems faced by one of these programs are neither unique to this university, nor to higher education in general.

Needs/Problems Faced by WWU'S Graduate Programs in Education

1. The need to compensate for low and fluctuating enrollment

Underenrollment or fluctuating student demand within the university's local area creates pressure on the university to find a stable student population beyond its immediate service area. Academic programs aimed at preparatory degrees and professional certificates for target groups such as public school principals, human services practitioners, student personnel administrators, and adult educators are historically small due to the rural service area of the university. The demand for such programs varies according to the availability of jobs, the economic outlook, demographic changes, etc.

This problem is indicative of the dilemma faced by institutions across the country in coping with the changing demands of the "market." The speed of social change and the knowledge "explosion" mandate lifelong learning, but unless institutions can adapt to the changes in training needs, they will face fluctuating enrollment. The production of information alone has escalated so rapidly that almost all professionals must be able to access new knowledge (Cross, 1980). There are now more and more options for working adults to get training. Ten million workers are currently taking 18 million courses a year, most of them offered "in house" by employers (Hodgkinson, 1985). Learners have ready access to professional associations, community groups, correspondence courses, and audiocassette tapes. When time and money is limited, adults will turn to colleges and universities only if programs offered are relevant, convenient and economical.

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2. Student demand beyond the local community at satellite sites currently identified as up to 200 miles from the university's main campus.

A second facet of the problem centers on student needs ninety miles south of the university, in the metropolitan Seattle region (90 miles south of main campus). Here, student demand for degree and professional certification programs in school administration (and other areas) has exceeded capacity of the state university located in Seattle (the University of Washington). For this reason, a satellite campus to provide for graduate degrees and certificate programs in school administration was established in 1976. This program has been coordinated by a full time professor assigned in Seattle with additional faculty support provided through the identification and use of local school administrators contracted on a quarterly basis as adjunct professors.

The third facet of the problem centers still another ninety miles south of Seattle (180 miles south of the main campus in Bellingham) where the university has contracted with a state college (The Evergreen State College, Olympia) to provide programs on its campus leading to teacher certification and administration degree and certificate programs.

3. The need to assure quality, consistency, and support services offered away from the main campus

The metropolitan Seattle site serves a far greater and more numerically stable population but is not housed on a university campus and therefore struggles with:

1) access to graduate reference and research materials,

2) loss of contact with and instruction from a range of regular university faculty members,

3) loss of consistency due to the temporary employment nature of changing adjunct professors, and

4) communication difficulties inherent in a ninety mile separation from the main campus and its support services (registration, graduate school, placement center, and records).

While the program in Olympia will (when developed) be housed on a college campus, the following problems exist:

1) qualified faculty members in school administration are not available on the Evergreen faculty;

2) the college library is not designed nor equipped for a graduate course of study;

3) adjunct faculty will replicate problems inherent at the Seattle site with increased loss of consistency and continuity as the program moves to three sites (Bellingham, Seattle and Olympia); and

4) communication difficulties inherent in a 180 mile separation from the main campus and its ancillary services.

4. The need to maximize the availability of faculty members and resource people who can provide consistency as well as the right "mix" of skills and knowledge

Faculty members hired as specialists are increasingly required to provide students with generalist (cognitive and interpersonal) skills as well as training in areas outside their disciplines. Since career change has become one of the norms for workers in the 20th century, educators have recognized the need to balance subject area instruction with the teaching of increasingly complex skills. Klemp (1977) studied the relationship between work and education, and attempted to identify factors underlying occupational success. His most consistent finding was that "the amount of knowledge one acquires of a content area is generally unrelated even to marginally acceptable performance. . . In fact, it is neither the acquisition of knowledge nor the use of knowledge that distinguishes the outstanding performer, but rather the cognitive skills that are developed and exercised in the process of acquiring and using knowledge." The cognitive skills included learning how to learn and locate information, understanding many sides of a controversial issue, and learning from experience. Other critical skills involved communication (written, spoken, and nonverbal), accurate empathy, and initiative.

Graduate programs and training designed for specific target groups may have only a limited number of courses and faculty members available to students. Faculty unwillingness to teach off-site and off-hours has been cited as a problem ([illegible] 1984). One solution has been to hire adjunct faculty. In order to assure program consistency, careful monitoring and ongoing consultation are required.

Another solution has been to balance seminars with practicum experiences. Many students who both live and carry on internships at sites up to 180 miles south of main campus. This involves a great deal of commuting, as well as difficulties for on-campus faculty needing to visit students at their internship sites. Other students have simply left their homes and families for a year to complete studies on the main campus.

5. The need to be responsive to the specific needs of program participants

Virtually all participants in the graduate programs mentioned above are "nontraditional students." That is, they are adults, 25 years of age or older. In order to be effective, the program must address these needs. For example, most adults give practical, pragmatic reasons for learning. They are goal-oriented, and are often in the midst of transitions which increase need for professional or personal growth (Cross, 1981). Learning that will improve their position in life is a major motivation. Furthermore, adults who have entered the work force, especially those in professional roles, have already experienced the benefits of individualized skill-building. They have become consumers of content-specific training. Career paths no longer move in linear directions, but instead branch out into overlapping or contrasting areas of work. This necessitates individualized self-assessment to a greater degree than ever in American society.

In order to attract adult learners, institutions must provide learning options which offer convenience, low cost, direct applicability and interactive learning. Adults are pressured by job, family, and community responsibilities. Many are willing to make significant investments of time and money in order to accomplish educational goals. Factors such as low cost, convenience, and the availability of support services during hours when adults are in need of them are important factors in the selection of programs (Reisser, 1980).

Chickering (1985) states:

> Education and training need to occur at locations and during time periods which respond to the living realities of persons with significant job, family, and community responsibilities. By shortening the physical and psychological distance

> between the learner and the needed resources, we improve access and 'time on task,' making opportunities available to many who otherwise would be deprived.

A number of studies have addressed characteristics of adult learners. Many of them have found that adults typically pursue learning projects of their own design (Tough, 1978). They are not unfamiliar with self-directed learning, and with support, can share responsibility with instructors who act as both experts and facilitators. With career pathing now largely the responsibility of the individual, self-directed learning is a critical component of upward mobility.

6. The need to provide services within university fiscal constraints

Since 1980, the university has been subjected to financial constraints imposed by a conservative legislature and limited state tax dollars. Like other higher education institutions, Western Washington University is subject to the forces of supply and demand. When economic constraints or decreasing enrollment lead to budgetary pressures, the first response is usually to cut costs rather than finding ways to increase demand. Recruiting efforts and attrition studies may become intensified, but according to Chickering (1977), "only rarely do we seriously consider changes in structure, location, educational processes and resources which might make institutions more economical and more accessible." Offering new programs based on emerging needs within the state may be vital to the health of the institution, as well as the state's economy, but new faculty positions are increasingly rare as rising operating costs exceed funding increases.

Certain kinds of cost-saving measures can reduce participation by those who are most likely to constitute the vital new population of students in the future: adult learners in need of new skills. For example, follow-up studies on the impact of Proposition 13 on California community colleges indicate that a dramatic reduction in public funding for education made a significant difference in terms of participation. The number of part-time students enrolled in 1979 dropped by 40% from the previous fall. Raising tuition may be a short-term solution, but in most surveys, lack of time vies with cost for first place among the obstacles to education among adults (Cross, 1980). In order to attract adult learners, costs need to be kept down.

The need to stimulate economic development has prompted new partnerships among higher education, government agencies, and private industry. Colleges in Washington have contracted with local business and industry to provide on-site instruction to their employees as well as internship sites for students to acquire on-the-job experience. Benefits are possible for both the private sector and higher education if educational planners can identify opportunities for sharing resources.

7. The need to be prepare students for the challenges of living and working in today's changing society

Chickering (1985) has suggested that both universities and corporations need to foster new kinds of basic competencies, based on changes in our society. These changes include movement toward an information-based society, decentralization, and an increased concern for autonomy. He claims that most education and training activities do not foster the acquisition of key competencies, such as information-processing and communication skills, self-reliance, and the ability to cooperate for common purposes and to make linkages with others. Among the changes in corporate and higher education that can help strengthen these competencies, which would include:

1) respect for individuals and individual differences vs. "cookie-cutter" education and training;

2) effective integration of theory and practice, including direct observations and active experiences systematically employed;

3) practically relevant content, pertinent to the pragmatic motives of adult learners;

4) mixed modes of instruction, which combine concrete experiences, reading, group interaction, individually designed independent studies, authoritative lectures, and resources available through emerging technologies;

5) peer learning network; and

6) increased access and efficiency.

A New Educational Strategy: the increased use of electronic technologies for delivering educational services

This section will review the status of telecommunications technology as an educational strategy for addressing these needs.

Historical Perspective

Grieve (1984) has documented a variety of education oriented experiments with satellite telecommunications dating back to the 1960's. While technology has rapidly expanded since that decade, it was clear even then that telecommunications could have a positive educational application. Telecommunications is "the electronic transfer of data from one machine to another" (Henson, 1984). While once separated into three major information management technologies (voice communications, data processing and word processing), these information systems have increasingly merged into one integrated information processing system, with a rapidly growing number of preparation, transfer and utilization variables.

Distance Learning

Widespread experiments during the 1970's and 1980's focused on the concept of "distance education," "distance learning," or "distance delivery." These synonymous terms have been used to describe programs which sought to "provide study without having students in one location or under the continuous, immediate supervision of instructors" (Johnson, 1983, pp. 1-2). Goldstein (1984) defines distance learning as "recognized learning that takes place at a site remote from the point of origination" (p. 4). "Recognized learning" is instruction delivered to the learner through either a passive or interactive electronic medium. It can also include a combination of media, such as:

1) open broadcast radio and television,
2) Instructional Television Fixed Service (ITFS),
3) "bicycled" distribution of tapes or discs,
4) cable, microwave and satellite systems,
5) telephone networks, or
6) computer-assisted instruction.

Keegan (1980) defines optimum distance education to include the following elements:

1) the separation of teacher and learner which distinguishes it from face-to-face teaching;

2) the influence of an educational organization which distinguishes it from private study;

3) the use of technical media, usually print, to unite teacher and learner and carry the educational content;

4) the provision of two-way communications so that the student can benefit from or even initiate dialogue;

5) the possibility of occasional meetings for both didactic and socialization purposes.

One-way vs. Two-way Distance Learning

An important difference between the above definitions centers on the question of one-way (passive) distance learning versus two-way (interactive) learning. While most experts would agree with Goldstein's definition that includes one-way, or passive communications within the concept of distance learning, it is also generally agreed that (as Keegan points out) the effectiveness of distance learning is greatly enhanced by some form of two-way (or even limited access to two-way) communication. Two-way educational systems have been in operation since the mid 1970's (Roth, 1980), through grants from the U.S. Department of Education and the Commonwealth of Virginia Department of Education to the Center for Excellence (CENTEX). Now, more than a decade into the educational use of two-way (interactive) distance learning, its results have addressed many of the major deficiencies found in one-way learning, including student burn-out, lack of learner application, lack of educational credibility (Johnson, [illegible]), and loss of individual attention, participation and feedback which often leads to student hostility (Schaff, 1981).

Interactive Distance Learning vs. Face-to-Face Instruction

Kirman (1980), compared achievement levels of students who had received instruction from two different groups of teachers. One group had been educated to curricular content through interactive distance learning (one-way television with simultaneous telephone linkage) while the other group of teachers received curricular content through traditional face-to-face instruction. Kirman's results indicated the distance learning mode of inservice to be "at least as effective as a face-to-face mode of delivery for communicating information to be eventually taught to pupils"(Kirman, p. 8).

For the motivated student, distance learning can offer the opportunity for self-directed learning (Johnson, p. 16). Additionally, it can model a working knowledge of the uses of educational technology (Nytes, p.34), and in some cases can be the catalyst for greater student success than can be achieved through traditional methods (Hartz, p.11). While not suggested as a replacement for face-to-face instruction, distance learning has been demonstrated to be an effective alternative instructional delivery model.

Transmission Media

Emard (1981, p.70), provides a basic description of the five main information transmission media. Those include:

1) wire carriers, commonly in open-wire or twisted wire pairs, that can carry a limited amount of transmission traffic from one point to another;

2) coaxial cables that enable high frequency signals to be sent through insulated wires and can accommodate a larger number of voice channels than can the wire carriers;

3) microwave propagation through the air that allows voice, video and data signals to be transmitted on a continuous-wave oscillation of a single tunable frequency;

4) optical fibers composed of thread-like glass wires that are capable of carrying nearly 1,500 voice conversations or two television channels of information for distances up to four miles before reamplification is necessary; and

5) satellites that have combined space and telecommunications technologies [microwave transmission] to provide geosynchronous communications relay terminals in order to establish telecommunication services across vast expanses of land and water.

Any of the above media are capable of transmitting audio, visual and data electronic signals and may be utilized singly or in any media combination to create a telecommunications network (Grieve, 1984). While satellite technology offers distance-coverage advantages, its costs are often prohibitive. Transmission media other than satellite (especially microwave, fiber optics and coaxial cable), can provide for less costly distance learning while maintaining the ability to interface with a satellite network at a later date.

Five Models of Distance Learning Systems

There are a great many distance learning systems now operating in the United States. For purposes of illustration, five models are described below. These models depict different ways to use instructional telecommunications.

1. Learn/Alaska Network

This network is a statewide instructional telecommunications system with satellite access to locations worldwide. It was the world's first low-power television transmitter system, and includes an audioconferencing two-wire bridging system with teletest and audiographics capabilities, and computer conferencing (Hickman, 1983). Microwave is a critical form of transmission, with periodic system uplink capabilities needed to meet the instructional and administrative educational needs of a largely rural state. Electronic mail and computer database access provide linkages and services to all university locations and all 52 public school districts.

3. The National University Teleconferencing Network (NUTN)

Over 100 colleges and universities have affiliated with the NUTN to provide for continuing education, staff development, member-oriented programming distribution and higher education/business teleconferencing. The network is a fully interactive satellite system with an ancillary computer conferencing and electronic mail link.

4. National Technological University (NTU)

This satellite network redistributes via cable television and is focused on the dissemination of engineering coursework through one-way video and two-way telephone audio. While NTU is the degree awarding institution, coursework originates from sites around the country. This partnership serves a critical need for The Boeing Company, among others, which can now offer on-site undergraduate and graduate engineering courses through the National Technological University.

5. Oklahoma State University Telecommunications Center

This multimillion dollar center opened in 1983. Video and audio transmissions via satellite are combined with telephone transmittal from receiving sites to the point of origin. Surface audio has been augmented with a bridging system for multiple site interactive linkage. The center has sponsored several teleconferences and has joined technological resources with other educational systems to reach larger audiences with greater effectiveness (Lawry, 1985)

The Teaching and Learning Process as Impacted by Telecommunications

Not only can electronic technology provide the means to reach new audiences beyond the campus, but it can also improve the effectiveness of the teaching and learning process. Malcolm Knowles (1983) has made a prediction that by the end of this century, most educational services will be delivered electronically, by teleconferencing, cable and satellite television, computer networks, and other means yet to be discovered. He stipulates, however, that educators must learn how to use the media in congruence with principles of adult learning. Until now, the media have for the most part been used as vehicles for the one-way transmission of teacher-controlled instruction. The key to effective use of the new technology in education, according to Knowles, is adherance to four principles:

1) Interaction. Learning is most effective when the learners are engaged interactively in a process of inquiry. One form of interaction was provided by the teaching machine and early computer-assisted instruction programs, which kept the learners in a passive role. More recent uses of teleconferencing, cable and satellite television, and interactive video and computer-assisted learning provide interaction between learners, with superior results in terms of learner involvement and learning outcomes.

2) Task-centeredness. Adults seldom learn something for its own sake or to accumulate academic credits. To be effective, media-assisted instruction must be organized around the acquisition of skills, knowledge, and values that are applicable to the learner's most important goals.

3) Individualization. Since adults differ significantly in terms of life experience, learning style, motivation, developmental stages, and pace of learning, effective programs will provide a range of options in learning rather than a lockstep standardized curriculum.

4) Self-directedness. Adults are more likely to be motivated to learn when they are involved in making decisions about what they are going to learn, how they are going to learn it, and how they are going to verify that they have learned it. Effective programs need to recognize and foster learner responsibility by stimulating active participation.

A Proposed Model: The Development of Interactive Microwave Educational Centers

Microwave Transmittal vs Cable Television

Line of sight microwave transmission can travel approximately twenty-two (22) miles without redistribution or boosting requirements. Utilization of a series of transmittal sites could extend microwave communications capabilities from main campus (Bellingham), through Seattle to the new program center at The Evergreen State College (TESC) in Olympia. Microwave transmission would provide: (1) interactive audio and video linkages with all three program centers, as well as provide for immediate additional instructional sites within the transmittal radius; (2) simultaneous instruction to all instructional sites, with instructional transmittal from faculty on the main campus and/or satellite [illegible], thus assuring consistent quality, continuity and interchangability of student instruction, and (3) improved utilization and availability of faculty for instructional, advisory and informational purposes. Cost effectiveness is at issue with microwave transmission, largely because of the initial expense of transmittal stations. However, there may be opportunities to collaborate with the private sector. Plans are currently being implemented to establish a series of transmittal sites from Vancouver, British Columbia to Seattle, Washington. It may be feasible to sub-contract off-hour time to accommodate evening course instruction.

An alternative to microwave transmission is cable television with accompanying telephone utilization. While not as desirable as microwave transmission due to the separation of audio (via telephone) and video (via cable television) transmission, this does provide a usable interactive system.

Computer Access To Commercial Data Bases

At each instructional site, computer/phone linkages with electronically transmitted commercial data bases would provide students with access to graduate reference and research information. This would provide students with access to instructional support materials and a model for self-directed continuing education through computer linkages at their professional work sites.

University Support Service Access

On site electronic bulletin board and other computer/phone linkages with the main campus will assure faculty, staff and students the necessary access to support services such as: registration, graduate school, placement center, records, bookstore, departmental administration, and others. This is a critical linkage for all concerned, and would be a central focus of the educational center.

Conclusions

The primary intended outcome of this proposal would be to meet the need to provide quality instructional programs necessary to train individuals in professional preparatory programs, utilizing a minimum of three separate sites spanning approximately 200 miles south of the main university. Additional outcomes include:

1) expansion of program offerings at each educational center to meet other educational program needs;

2) possibilities for increased interdisciplinary collaboration;

3) the creation of a partnership between private business and the university in the development and utilization of this communications system;

4) instructional modeling to enable self-directed continuing education of learners through computer capabilities at the work site or at home;

5) improved cost effectiveness for instructional delivery;

6) student access to university coursework in remote and/or rural areas previously not served by the state university system.

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TRAINING COLLEGE ADULTS WHO HAVE LEARNING DISABILITIES

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In 1987 an extensive survey of the adult labor identified more than 55,000 adults aged 18-65 who cannot handle the reading requirements of most jobs. Many have learning problems. Since background information on these adults is generally lacking, it is difficult to pinpoint these problems. The adult educator nonetheless faces the task of dealing with unidentified learning dysfunctions that greatly limit reading, math, and handwriting proficiency.

Learning problems in Adults

Five distinct problem areas are seen in adults who have trouble with reading, spelling, math, and handwriting:

1. Vision problems.
2. Visual discrimination and memory dysfunction.
3. Auditory discrimination and memory dysfunction.
4. Extremely erratic handwriting.
5. Dysfunction in the neurological system.

Poor Vision at Close Range

It makes little difference to classroom performance how well a person can focus or see clearly at a distance, yet most vision-screening exams concentrate on this. The critical distance for school learning is at close range, yet approximately 60% of all students identified as learning disable have poor eye muscle coordination for focusing and refocusing at close range.

SCORING 20/20 ON THE SNELLEN TEST MAKES VIRTUALLY NO DIFFERENCE FOR A MAJORITY OF STUDENTS WHO SHOW SIGNS OF LEARNING DISABILITY OR DYSLEXIA.

When a student cannot focus properly or aim his or her eyes well within this limited near range, a variety of symptoms appear.

As you become acquainted with your students, the following checklist might be helpful in letting you spot reasons why certain adults do not respond well to lessons or printed materials. As you see these behaviors in students, make notes and mark the checklist items that appear. This information can let you talk these things over with students. This kind of record will also help you refer students onto other professionals for help.

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Signs of Poor Vision

1. Eyes begin to water after a few minutes of close work.
2. Eyes begin to grow red after a time of work.
3. Student peers at an angle to see work on desk instead of sighting in a normal way.
4. Oral reading is choppy, with words skipped, endings of words left off, and frequent repetitions of words or phrases.
5. In refocusing to next line, student loses place, leaves out next line, or starts to read same line again.
6. Student needs to mark words with a finger, or some other kind of marker to keep place in reading.
7. Sustained reading becomes increasing jumbled and less adequate the longer student tries to read.
8. Student squints and peers close to see print.
9. Student rubs at eyes, brushes at corners of eyes or stops frequently to massage eyes.
10. Student comments about having headache (front of head or side of head over temples) after reading or writing for a while.
11. Student frequently shifts body posture: leans close for a while, then leans back, then leans toward one side every few minutes.
12. Student lifts eyes from page frequently to glance around.
13. Student yawns often while reading, but does not yawn at other times.
14. Right-handed student grips pencil awkwardly with the point turned back under the hand, as a left writer holds pencil.
15. Right-handed student lays head down on left arm and guides pencil with only one eye.
16. Student makes a tripod of one hand, then rests head on wrist with eyes close to pencil point while writing with the other.
17. Writing cuts through he line or wobbles up and down above line.
18. Student seems restless; shifts position often during reading tasks.
19. Student punches words with finger or slides marker under the line while reading; often whispers words aloud.
20. Student has odd pencil grip, clutches pencil back under right hand with fingers gripping the pencil shaft awkwardly.
21. Student leans close to paper while writing; words unevenly spaced.
22. Student complains of distinctive headaches beginning along forehead and slowly spreading to temples; pain along inner corners of eyes; onset soon after reading has begun.
23. Left margins zig zag in and out instead of staying against writing guideline.

Signs of Learning Problems

1. Student writes letter or numbers backwards or upside down - b for d, p for q, b for p, p for d, M for W, u for n, 7 for Z, S for r.
2. Student reads words, numbers, or syllables backwards- 21 for 12, 18 for 81, net for ten, was for saw, of for for, on for no, form for from, bran for barn, spot for stop, but for tub.
3. Student spells phonetically, cannot remember spelling patterns - Munday, Toosday, Winsday, Thirsday.
4. Student reverses letters in spelling - Apirl, Firday, gril, brid.
5. Student prints instead of writing cursive, using all capitals or mostly capitals with a few lower case letters.
6. Student mixes capital and lower case letters inappropriately - BaBY, PaDDIE, mOTheR, SunDAy, doLLaR.
7. Student must whisper to self over and over when writing from memory or copy.
8. Student cannot retain new information without excessive rehearsal and practice.
9. Student cannot recall familiar facts on command, but can recall them at other times.
10. Student writes circular letter parts with backward strokes, makes certain letters or numbers with a bottom-to-top stroke instead of the usual top-to-bottom.
11. Student cannot identify left from right or which direction is north, south, east, or west.
12. Student cannot write simple information in sequence (alphabet, days of the week, months of the year, own birth date).
13. Student cannot master information such as addition, subtraction, or multiplication facts.
14. Student cannot remember which direction to take in simple math computation.
15. Student cannot get the point of oral information (lecture, instructions, sermons, discussion) through listening; information must be repeated and reviewed before understanding is achieved.
16. Student cannot use basic phonics to sound out words.
17. Student skips words; re-reads lines in oral reading.
18. Reading style halty and jerky.
19. Reading patterns slow and deliberate.

Visual Discrimination and Visual Memory

Visual discrimination concerns the ability to detect differences informs, letters, and words. Visual memory is concerned with the ability to retain a full mental image of what one has seen. In both cases, the central nervous system cannot process symbols correctly. Many adults with learning problems show signs of dysfunction in this area.

In reading there is much letter confusion: M with W, g with q, p with d or b, etc. The student might mirror read (saw for was). Some students reverse numbers. There are many medial symbol reversals (brid for bird).

Directionally problems become evident, especially in math computation. Math processes are right to left and bottom t top - just the opposite of reading and learning problems. The learning disabled student is frustrated by these constant changes indirection. This, coupled with memory problems complicates the issue and adds even more frustration and inner tension.

Body in space directions cause considerable confusion for these student. They have difficulty telling left from right and identifying north, south, east and west. They often live by landmarks instead of direction and are most comfortable with familiar, unchanging settings.

Auditory Discrimination and Auditory Memory

Auditory discrimination is the ability to recognize a difference between sounds. Auditory memory is the ability to store and recall what one has heard. People with an auditory deficit do not hear the vowel sounds or the soft consonant sounds in spoken words. This affects their ability to read and their ability to spell. They put on paper what they hear - the guess at the rest.

An auditory deficit shows up in may school and job-related tasks:

- difficulty taking notes in class
- difficulty carrying out oral instructions
- difficulty understanding conversations because only part of the conversation is heard
- difficulty taking a phone message.

As a rule, the student with an auditory deficit who does not receive help will become increasingly frustrated in a school or job setting.

Poor Fine Motor Discrimination

Many adults cannot command a pencil to write neatly or form cursive letters correctly. Messages from the brain to the fingers become garbled along the way, causing the pencil to make a backward stroke or to skip a stroke altogether. Learning disabled children taught by the stick-and-ball method almost never make a successful transition into cursive style. Many adults with learning problems write in a block print style, using most capital letters or a mixture of upper and lower case. Often they whisper to themselves while they write. During a long writing assignment, the quality of writing will rapidly deteriorate as less and less pencil control is maintained.

Neurological Functions and Learning Disorders

In the past few years a good deal of attention has been given to delayed maturity and its effect upon academic learning. Many persons labelled "Learning Disabled" as children eventually outgrow these problems as their nervous systems reach this delayed maturity.

Several delayed-maturity syndromes have been identified. They have one thing in common: between the ages of 16 and 22 remarkable changes begin to occur. Due to maturation of neurological functioning, these persons become capable of doing good work for the first time. They often become highly successful adults. Some of these syndromes are:

- Shoestring Baby Syndrome: child is colicky with low birth weight; usually longer than average baby; show lactose intolerance (trouble digesting mile)l shows allergy symptoms and has respiratory problems, chronic colds and ear infections.

- ADDS - Attentional Deficit Dysfunction Syndrome: Restless student with short attention span that is often labelled hyperactive; due to a delay in the development of the myelin structure of the central nervous system, the student remains physically immature until young adulthood.

- BALD syndrome - Blond, Allergic, Late Developing: This person is usually male, with extremely fine, cottony blond hair that does not darken until late teen or early 20's; he has chronic allergies and is late entering puberty.

Use of drugs and stimulants also affects the central nervous system. Certain chemicals can cause fragmented thought patterns. Others distort the senses, making it difficult to connect the sensory pathways of sight, hearing, touch, and speech. Vision may be affected. The ultimate result is seen in the student's behavior and his or her inability to function in the classroom.

Personal Characteristics

The adult who has experienced years of frustration with learning can be difficult to approach. Often these students are very sensitive and complain of being "picked on" or "harassed" by teachers. They tend to avoid school learning situations because they are insecure in a group setting.

The adult education teacher has to maintain a friendly, accepting attitude in order to break down these defenses. One must keep in mind the fact that adult students often have personal problems outside the classroom as well: financial worries, family problems, on-the-job tension. They often have difficulty sitting still in class and paying attention. When the teacher establishes an effective relationship with such an adult, a very strong bond is formed. For many adult students, this is the first positive academic experience they have had!

In planning for these students with learning problems, it is important to keep learning relevant. Always ask these three questions:

1. What does the student actually need to learn at this time?
2. What would be nice for the student to know?
3. What is irrelevant at this time?

This kind of guideline can help you eliminate goals and tasks that are beyond the student's present capability, and will help you zero in on what is necessary at this time.

Some Solutions

Some successful interventions which have proven helpful involve administrative offices. For example the willingness of the registrar's office to permit learning disabled students to register early which would facilitate ordering talking books in time for classes, arranging for tutors and insuring that students enrolled in suitable classes with some choice of instructors. The admissions office needs to become aware of incoming learning disabled students along with the knowledge that many of these students will be reluctant to identify themselves. It might prove helpful to include a space indicating learning disabilities which would encourage more students to identify themselves. If students indicate willingness and give permission the admissions staff can then notify the office that provides special academic services. The coordinator of orientation should be educated in regard to learning disabilities. A special orientation session should be furnished for students with learning disabilities that would provide information not only on academic services and special studies skills but also on stress and anxiety reduction. Since many students with learning disabilities require longer to complete program it may be necessary to request permission to alter time requirements. Usually there is a committee designated to handle deviations from various academic requirements. That particular committee needs to be made aware of learning disabilities and approached with the possibilities for changing time requirements while still maintaining academic standards. Because most students with learning disabilities have had disappointing experiences with school, and thus may lack self esteem, a strong (personalized) component is needed. The component should include services in areas such as the following:

- counseling - individual counseling sessions are very necessary. These sessions would allow student to deal with personal concerns that cannot be dealt with in group settings. They would also afford the opportunity for a counselor to be able to follow up on personal concerns that might otherwise be neglected.
- learning disability students organizations - because many students with learning disabilities may have come to feel lonely and different peer support could be provided through the establishment of an organization for students with learning disabilities. While this may emphasize learning differences it helps students to realize they are not totally alone. It provides a support system and a realistic acceptance rather than denial of the problem.
- workshops - the students need to have access to a variety of procedures for dealing with inter-personal problems. Workshops on special topics such as stress, test anxiety, mathematics anxiety and value clarification can be made available.
- mentoring - assigning mentors or peer counselors to learning disabled students permits the students to have a friendly relationship with a person who is concerned about their academic progress but who is also knowledgeable and realistic about his students strengths and weaknesses. This person can ensure that time lines be kept or that a student follows up on the plan to contact instructors about learning disabilities. It is necessary for the mentor to be direct and not wait for students to report problems. Because the students are likely to be reluctant to do so.
- career counseling - students should be made aware of career options. While there are probably no careers that cannot be attained by learning disables students, certainly students need to be aware of various occupations which might be particularly difficult. They need to set realistic career goals accompanied by a reasonable plan to reach their goals.
- computers - when computers are available they are invaluable educational tools. Writing skills programs have been written that are especially beneficial to college learning disabled students. There are programs in mathematics, in study skills and in various areas of business skills.
- faculty awareness and support - in addition to the "personalized" components perhaps the most important aspect of a program that deals with learning disabled student is faculty education. Rarely do college faculty members in the various academic disciplines possess adequate information about learning disabilities. Almost all faculty members have heard of dyslexia so it can be used to get their attention.

Then frequent characteristics and problems with learning disabled students can be described at departmental meetings with informative brochures and an opportunity for questions. Faculty orientation seminars also provide excellent opportunity for educating faculty members. Faculty members need information about procedures they could use to adapt their instruction and evaluation procedures without compromising quality. Faculty members are often willing to use different evaluation procedures such as typewritten or tape recorded answers to essay questions if someone is assigned to monitor the procedures. Remedial courses need to be made available including courses on reading and study skills, developmental english and mathematics. Academic laboratories staffed with knowledgeable and concerned persons in areas as varied as mathematics, accounting, writing and languages are particularly useful for dealing with individual learning problems. Additional support should be provided in the form of tutoring as needed for other courses. The tutors may be student who have learned who have excelled academically but they also need to be familiar with learning disabilities and the problems these students encounter.

The more students know about and understand the particular styles as well as their compensatory strategy and the more accurately they perceive themselves the more likely they are to succeed at the college level. This brings into focus the importance of high school resource personnel who should work with l.d. students not only at accomplishing academic tasks but also should help them understand their unique learning processes; never allowing them to equate that uniqueness with generally lower level of intellectual ability. If learning disabled students can begin their college course work with an understanding of the individual learning process and skill and the knowledge they will be supported not judged in their academic endeavors perhaps the deplorable scenario involving crisis can be avoided and success achieved.

Some resources for learning disabled students on the college level:

- The Orton Dyslexic Society at 724 York Road, Baltimore, Maryland. The Orton Dyslexic Society has branches in every state of the Union. The International Headquarters are in Baltimore, Maryland but there are branches in every state. There is also;
- The Academic Therapy Publications in Novado, California.
- The Association of Children and Adults with Learning Disabilities called "ACLD Inc." at 4156 Library Road, Pittsburgh, Pennsylvania 15234.

- The Directory of Facilities and Services for the Learning Disabled 11th edition - published by Academic Therapy Publication Novado, California.
- The International Academy for Research and Learning Disabilities at Rutgers Medical School at Piscataway, New Jersey 08854.

VALUES, DECISION-MAKING, AND POWER:
AN INTERDISCIPLINARY COURSE FOR THE ADULT LEARNER

Dineh Moghdam Davis

For the past several years Bentley College has offered an interdisciplinary, team-taught course on "Values and Choices" to its undergraduate students. The course takes advantage of the knowledge gained in the business disciplines and tempers it with the inherent wisdom in classic and modern literature, philosophy, and art. This is accomplished in a "whole life" atmosphere where students are constantly encouraged to integrate and synthesize their knowledge and experience and bring it into harmony with their personal lives. This course symbolizes Bentley's mission to produce liberally-educated business graduates.

Approximately 120 students per year take advantage of this popular offering. The course fulfills a humanities requirement and can be taken during the sophomore, junior, or senior year. The College plans on offering a variation of "Values & Choices" for its non-traditional evening students through the School of Continuing and Professional Studies. The following is an outline of this proposed course which has been designed with the needs and obligations of the more mature student in mind.

Catalog Course Description

Analyzes the concepts of work, choice, and power from an interdisciplinary perspective. Stresses the individual's need to recognize the sources which influence choices in career and personal settings. Team teaching and group projects, broad readings and special presentations characterize the course pattern. The development of written and oral communication skills is stressed.

Course Structure & Administration

The evening course offering will adapt the standard structure and administrative details of the larger, well-established, daytime course. Where a typical day session will combine four faculty and sixty students in a combination of large and small-group gatherings, the evening session will be limited to thirty-five students and will be administered by at least two faculty. One faculty will represent the liberal arts and the other the business disciplines. Typically a gender balance is also sought when faculty appointments are made.

All faculty assigned to this course attend every session throughout the semester and share equal responsibilities in all phases of course development and administration. The course is conducted one evening

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per week from 6:30 p.m. - 9:10 p.m. Generally speaking, class sessions are conducted in a mixture of short lectures followed by guided discussions. Student participation is always encouraged. Classrooms with moveable furniture are chosen to accommodate the various seating arrangements required for special projects.

Course Content

The course is designed in three inextricably linked modules. We begin with personal values, constraints, opportunities, and power and move on to societal power structures and the individual's responses to such power. Finally, the total experience gained in the course is applied to a group project for developing the "ideal workplace."

I. Individual Choices and Values

The first module explores the personal side of life. A combination of role playing, viewing of contemporary films, and readings in the literature help us gain a better understanding of ourselves and our society by examining personal and societal values and choices. Class discussions center around why we hold the values we act upon, and what alternatives we have to those values. We will then be in a position to see if we want to change ourselves and/or our society and how such change might be possible. Specific issues that affect all of our lives, such as sexism and racism, are given special attention.

Opportunities and constraints are studied carefully, always mindful of an opposing point of view: observing that many hidden opportunities may lie within overt constraints and that similarly we may have to take many risks to enjoy greater opportunities. Internal constraints are carefully separated from the institutional or societal constraints imposed upon individuals or groups of people.

II. Power

This module, building upon the shared experiences of the first part of the course, stresses the importance of acknowledging the role of power in our decision-making process. Who and what has power over us? To what extent are we able to exert power in our own lives? Identifying the power relationships in our lives uncovers some of the reasoning behind the choices we make and the values we hold. Power as domination is one of the themes in this module; personal empowerment is another strong current. In a broad continuum between the forces of external domination and personal power is the family, social, and work relationships we foster in our daily lives.

An experiential game of Starpower allows the students to find their personal level of comfort/discomfort with a social power structure. Discussions following this game clarify many of the concepts raised in the readings and put the focus directly on student responses to power. This game also serves as an appropriate transition to the next topic within this module.

Responses to domination by individuals and by groups form the second part of this module. We examine historical and contemporary cases of such response and again look for ways of realistically applying such knowledge to the students' personal lives.

III. The Ideal Workplace

Applying the knowledge gained in the first two modules, the students will work in small group of five or six to establish some "ground rules" for an ideal (utopian) workplace. They will have begun meeting in small groups during the latter half of the second module, approximately half way through the semester. There will be two complete sessions at the end devoted to the formulation of the projects and the course will culminate in the presentation and discussion of the models created by each student group.

Course Assignments

All students are asked to keep a weekly journal of their reflections on the readings, films, lectures, and classroom discussions. It is expected that each journal entry will be approximately one to two typewritten pages. Entries are deemed "acceptable" or "unacceptable" primarily based on the student's effort to take a deep look at the issues in question. Written communication skills are also stressed and are especially enforced in the longer paper assignments. The journal entries form 20% of the final grade.

While journal entries provide an opportunity for a more personal and subjective response to readings, a series of short papers are required to provide a more formal analysis of the same material. Three 4-5 page papers corresponding with the three modules of the course are assigned with more specific guidelines. These papers are expected to synthesize most of the readings in a given module and to tie in the knowledge gained with the student's personal experiences. In combination, these assignments form another 50% of the course grade.

Classroom contribution through participation in discussions, introduction of new issues, and/or suggestions for novel ways of approaching the topics at hand are among the possibilities for gaining the final 30% of the course grade. Regular attendance is expected of all students.

Instructional Materials

Several day-long planning meetings are scheduled each Spring for a complete evaluation of the year's experiences. During these meetings new faculty are introduced to the basic structure and philosophy of the course. A sense of continuity is maintained from year to year by balancing the number of new faculty with those who have had prior experience in teaching "Values and Choices."

Texts, films, and experiential materials used for this course are reviewed, refined, and/or changed each session. The following is a partial list of materials used in the Spring term of 1987, combined with potential candidates for Fall 1987. Decisions on instructional materials are reached jointly by all the faculty assigned to the course for a given session.

Films:

Missing (1982). A study of values and choices, both personal and societal.

Eyes on the Prize (1987). A PBS production on the Civil Rights movement.

Heart Like a Wheel (1983). Shirley Muldowney's triumph as a race-car driver.

Texts:

Not all texts are used in full. Excerpts are used when appropriate. Advance background information is provided to students to put each text in its historical/cultural context.

Brecht, B., Life of Galileo and Mother Courage and Her Children.
Blotnick, S., Ambitious Men; their drives, dreams, and delusions. (New York: Viking, 1987).
Brod, Craig, Technostress: The Human Cost of the Computer Revolution. Addison-Wesley, 1984.
Caplan, P., "Women at Work," in: The Myth of Women's Masochism. (New York: Signet, 1985).
Cluster, D., They Should Have Served That Cup of Coffee. (Boston: South End Press, 1979).
Gardner, L., Self Renewal; the individual and the innovative society. (New York: Harper & Row, 1964).
Goethe, J. Faust: A Tragedy (New York: Signet)
LeGuin, U.K., "Why Are Americans Afraid of Dragons?" and "The Stalin in the Soul."
Levine, Philip, One For The Rose. New York: Atheneum, 1981.
Lowen, A., Pleasure. (New York: Lancer, 1970).
Machiavelli, N., The Prince.
Maslow, A. H., "A Theory of Human Motivation," 1943.
Miller, A., The Death of a Salesman.
Tolstoy, L., "The Death of Ivan Ilyitch."
Turkle, S., The Second Self: Computers and the Human Spirit. New York: Simon & Schuster, 1984.

CHANGING FAMILY STRUCTURES AND RESULTING CHANGES IN MANAGEMENT OF HOME SUBSYSTEMS: AN INTERDISCIPLINARY APPROACH

Brenda Fyfe and Donald Westerfield

I. Introduction

Changing family structures have drastically changed the division of primary authority and responsibility for management of the subsystems in a home. Professional and home responsibilities compete for the managerial talents of the home structural entities: married - both work outside home; married - only one works outside home; consensal union - both combinations; single head - both combinations. According to Dana Friedman of the Work and Family Information Center of the Conference Board:

a) Approximately 9 - 10% of household in the U.S. fit the traditional mode of families in which the male bread-winner is the sole support of his at-home wife and children.
b) Approximately 40% of the workforce is now made up of families with both spouses working.
c) 80% of working women are of child-bearing age
d) 90% of those in (c) will become pregnant
e) 60% of working married men have wives working outside the home full-time or part-time
f) By 1990, 65% of new entrants to the labor market will be women
g) In 1984, 1 in every 4 mothers in the workforce was maintaining her own family.

(Harvard Business Review, March, 1986)

According to the Bureau of Labor Statistics the majority of mothers with children under the age of 18 are in the labor force, including nearly half of all married women with children under the age of one - and the majority of them, about 71%, have full-time jobs.

The foregoing statistics clearly indicate that dramatic changes have taken place and will continue to do so in the family structures. These changes mandate a reorganization in our thinking and, perhaps, a whole new way of thinking, regarding management of home subsystems.

Death, divorce, severe disability or sickness, and a number of other events can almost instantly change the home/family structure. These events can have great impact on the subsystems which require uninterrupted management, such as:

a) Financial and income subsystem
b) Food planning, preparation, distribution subsystem
c) Child care and nurturing subsystem

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d) Social and community interface subsystem
e) Educational subsystem
f) Professional and/or personal development subsystem
g) Home physical environment maintenance and improvement subsystem.
h) House cleaning, laundry, and ancillary activities subsystem.

These subsystems must be considered in the light of specialization of personal and family resources. Some of the subsystems are autonomous. All interact. For optimal utilization of personal and family resources, division of responsibility and authority for the management of each of the subsystems is necessary and will be governed by the type of family structure that is in place.

Adaptation to changes in family structure and family crises involves determining new distributions of responsibilities, creating whole new approaches to home management needs, identifying resources outside the home, re-evaluating priorities and needs, and eliminating unnecessary or low priority items (Lakein, 1974).

The adaptation process involves:

a) Critical thinking and creative problem solving
b) Knowledge of resources, support services, community networks (social infrastructure)
c) Home and human resources management
d) Indentification and analysis of home-management subsystems as they relate to home-family needs.

Later in this paper, we will explore a number of ways that we, in higher education, can help the adult learner develop and maintain these adaptation skills. Before proceeding to the solutions, let us look a little more closely at some home management subsystems and the family conflicts which affect their operation.

II. Home Management Subsystems

Subsystems in the home are similar to subsystems at work. They interact with each other, they require management skills, they are essential to the continuity of the home, they require input and produce an output, they respond to efficiencies, and they often are synergistic, i.e., their total effect is greater than the sum of their separate effects on the home (Bucalo, 1974).

The financial and income subsystem includes every phase of money and in-kind receipts and disbursements. While the management of this subsystem can be relatively simple, if the responsibility is clearly delineated and assigned with a clear understanding, it has the potential for the greatest degree of conflict. Indeed, it is more often the cause of divorce than any other area. Some persons find that they are incapable of coping with this responsibility and should not be forced into the sole management of this subsystem.

The food planning, preparation and ancillary activities subsystem has been radically changing with an increasing number of working spouses. It is not uncommon for working spouses to eat out more and rely on externally prepared meals or parts of them. Even when there are children involved, there is a tendency for an increasing portion of the responsibility for this subsystem to be delegated outside the home. There is also a tendency for more male spouses of working females to share the responsibility for this subsystem.

The child care and nurturing subsystem has been shared with the school system for years, but there is the tendency for younger children to be affected by the increased participation in the labor force by women. The statistics given above suggest that more of the children will be cared for many hours of the day by external agencies/person. The responsibility for this subsystem has been complicated by divorce, especially when custody is shared by court order. It is virtually impossible to draw definitive lines of responsibility when physical custody may change several times during a year. Even in a family with both spouses married and living together, there is often a constant struggle with the problem of the dominant force in discipline, in correction, in counseling, in affection, and in leadership. It is by far the most complex subsystem, and by far the least well defined of all the subsystems in the home.

The social and community interface subsystem involves all those activities associated with entertainment, recreation, intrafamily interaction, and interaction with external agencies, families, and individuals. This subsystem involves public relations skills with schools, churches, law enforcement agencies, and countless contacts outside the home. Communication, listening, and cooperative skills are minimal requisites for efficient operation of this subsystem.

The educational subsystem has long included the outside resource of the public or private school system. With increasing pressure for both spouses to work, the number of years that schools are included as an integral part of the educational subsystem is increasing. The overlap of the school structure with the educational part of nurturing is a souce of conflict. Areas of formal instruction involving moral issues often conflict with moral views and background of parents. With parents working large portions of a day, and spending part of the evening in a classroom themselves, the influence of the school and peers increases sharply and often permanently. Children go to school tired from having stayed up late at night. Often they return home to no parents or are permitted to spend long hours watching TV rather than doing their work. Parents come in from work too tired to help the children with homework and class projects. These are all areas of conflict, which could be supported many times over,.involving the delegation of responsibility for the educational subsystem.

Another ill-defined and difficult to manage home subsystem is the professional and/or personal development subsystem. This one includes the obvious social and professional networking for the parents, but it also includes such things as quiet time for meditation, religious activities, family discussions, the whole range of intrapersonal study, family hygiene and health activities and information, and family personal support activities.

If a parent or child has acquired certain physical skills in painting, repairing, papering, cleaning, and general upkeep, then managing the home physical environment maintenance and improvement subsystem is much easier. With increasingly less and less time for these activities by working parents, outside resources often play a major role in both planning and managing this subsystem. It is obvious also that the skills that would normally be passed from parent to child and shared with spouses cannot be developed when they are hired through outside resources due to their professions. This is especially true in the case of single heads of families and to a lesser degree by consensal unions.

Although the house cleaning, laundry, and ancillary activities subsystem seems like a very simple one to manage, it is so informally approached by many heads of families that it is one of the least efficiently managed of all. Fortunately, things do get accomplished, but the priority of accomplishment is the "squeaky wheel gets the oil" manner. The management of this subsystem could and should be shared by all family members, but most would agree that the stereotypical patterns have not changed much in this area.

In the next section, we discuss conflicts that are typically associated with the management of the subsystems discussed above.

III. Conflicts of Family Structures

The transition of an individual through one or more of the family structures mentioned above has a profound effect on every facet of the individual's life. The stereotype of the male bread-winner and the female homemaker has not been a fact of life for many years, but there are those who still approach family and interpersonal relations as though it were. The need for sharing of responsibilities for the efficient operation of all home management subsystems does not wait for a smooth solution or workable solution. Heads of homes who are flexible and sensitive enough to spend the time and effort to find acceptable solutions realize the benefits far outweigh the costs.

In the management of home subsystems, sources of conflict are difficult to evaluate, no matter how intense the observation or how qualified the examiner. Examining what responsibilities each family member has will often lead to startling conclusions. In order to analyze conflict associated with the management of home subsystems, we outline levels of management activity:

1) Reality - What individuals actually do.

2) Perceptions - What individuals think they do versus versus what others think they do.

3) Norms - What individuals think they should do versus what others would like them to do.

4) Plans - What individuals plan to do versus what others think they are going to do.
(Walker, 1980)

One of the greatest causes of conflicts is perceptions regarding the responsibilities for given home subsystems. A husband, for example, may think that the wife has sole responsibility for the subsystem involving meal planning, preparation, and ancillary activities. If they both work, she may think otherwise. The wife may, for example, think that if she has responsibility for the subsystem involving meals that the husband should have the responsibility for the house cleaning subsystem. He may think otherwise.

It is easy to see that these are real situations in which conflict arises due to the misunderstanding of each person's responsibility for a home management subsystem or a part of it, and the interdependence and interaction of the subsystems themselves. Superimposed on this layer of conflict are the perceptions each family member has regarding the importance and contribution to the family of the primary activity outside the family. The spouses may both work and may feel that most of the housework should be shared by children, if they are old enough. Children may feel that they are so busy with school work that the housework should be done by the parents. When spouses make unequal incomes, which is almost always the case, they may argue that the housework should be divided along the lines of the proportions of family income that they produce.

As if the above were not complex enough, think of another layer of conflict that arises from the perception that a spouse is better suited, by training or physical/psychological makeup, for a given subsystem responsibility. This does not consider the desire and motivation of the spouse in question. Maybe the one less suited may be the one with the greatest interest, for whatever reason. Perhaps, in the distribution of responsibilities, primary consideration should be given to the interests of a spouse, other considerations notwithstanding.

Single heads of families present special problems of distributions of responsibilities. Very often, when income permits, responsibility for given subsystems are delegated to outside agencies. It is not uncommon for a single head of a family to delegate the child care and nurturing subsystem to a day care center during large portions of a day. Likewise it would not be at all surprising to learn that large portions of every subsystem listed in the preceding section were delegated to outside agencies or persons. Examples would be taxes and other financial planning by banks or accountants, food obtained from fast food establishments, child care at child care centers during working hours, education at the child care centers and schools, home maintenance done by contractors, and laundry and ancillary activities done by a house cleaning person. One may find that it is a rule, rather than the exception, for single heads of families to have a network of external agencies/persons sharing very large portions of home subsystem responsibilities.

Consensal unions, unmarried persons living together, present still another dimension of conflict, since they act in many respects like both married and single heads of families. The degree to which they delegate responsibilities for home management subsystems to external agencies is more than a married couple and less than a single head of a family. Implicit contracts or agreements regarding the distribution of responsibilities for the subsystems may be subject to a greater degree of volatility in a consensal union than in either of the other family structures.

IV. An Intradisciplinary Approach

The subject of work and family issues can be addressed in many areas of a college curriculum. One of the things we know about adult learners is that they want and often demand that learning be relevant and applicable to their lives. Good instructors always strive to help students find personal meaning in the knowledge or skills taught. What better way than to integrate the concerns, dilemmas or issues related to changing family structures and home mangement in our courses whenever possible?

This can and is already being done in many courses at Webster University as well as other schools. One can easily see the possibilities of incorporating discussions of changing family structures in a majority of courses in the behavioral and social sciences (i.e. Child Psychology, Psychology of Adulthood and Aging, Psychology of Adjustment, Kinship and Family, Family Counseling).

Those of us in teacher education have for many years been emphasizing the importance of parent involvement. This subject cannot appropriately be addressed without examing the many different kinds of family structures which have a direct impact on the kinds of involvement that are possible as well as desired. So courses like Communication in Education; Home, School, Community Relations; and Family and Community Resources have been developed and continually re-designed as new family structures, problems and issues develop.

Courses in Stress and Time Management can directly focus on the problems and needs of individuals who are struggling to adapt to the changes and pressures in their lives.

Women's Studies courses frequently address the concerns of home management and changing family structures. Although women typically take or are burdened with more responsibility in this regard, these are not and should not be perceived solely as women's issues.

Business and Management are fields of study which are more recently beginning to develop a heightened awareness and need to cope with the needs of changing families. The statistics cited at the beginning of this paper cannot be ignored by employers of today or tomorrow. The ability to attract the best of new workers in 1990 may very well depend on the family support services or benefits which are in place.

Recent surveys and studies across the nation indicated that the majority of working parents experience stress from trying to juggle home and work responsibilities. Many of these surveys indicate that worker morale and loyalty improve when the work place is supportive to the needs of working parents. Absenteeism and productivity are negatively affected when no supports are in place. (Galinsky, 1986, Vartulli, 1986, and Burud, 1984) This kind of information presents a message that hits at the heart of any employer's goals - the productivity of workers.

Employer responses to the problems can be as varied as the individual needs of families and abilities of the company to do something for them. They can range from flexible work time options or benefits to on site child care or referral services (Axel, 1984)

Human Resource Development and Personnel courses are ideal places in the Business and Management curriculum where the concerns and responses from employers can be addressed. The manager of tomorrow needs the information about the many and diverse needs of present and future employees, how they impact on profit and productivity and how companies can respond.

V. An Interdisciplinary Approach

None of the courses yet mentioned offer a direct or in depth focus on the complex management subsystems in the home. None can adequately address the many dimensions of the problems and the network of resources needed to deal with them.

We propose that this could be done through a general studies course which provides students the opportunity to examine the management of the subsystems from psychological, sociological, legal, economic, religious, historical, philosophical and educational perspectives. This kind of course could involve specialists among the university faculty from each of the disciplines representing the perspectives just mentioned. They will share and discuss the problems from the perspective of the represented discipline, present resource information and services, and identify university courses within their departments which further explore the topics under consideration.

Such a course would serve many purposes. It would enable students to examine the complex responsibilities of home management. The interdisciplinary approach would offer the multifaceted outlook on the problems and issues which is so necessary for their resolution. It would provide students with a great deal of resource and referral information and an opportunity to consider how it might be utilized for particular problems and situations. For the new student this kind of course could provide an excellent introduction to the faculty and curriculum in areas of study they might not have otherwise examined.

A course of this kind could become the nucleus for seminars or workshops (credit or non-credit) designed to further explore some of the topics, issues, problems or dilemmas identified in the core course.

The ideal long term plan would include the development of a resource center which would house information and referral material as well as provide a gathering place for students to network and meet to discuss mutual concerns.

VI. Conclusions

We have outlined some of the current problems and trends regarding changing family structures, the complex management subsystems in the home and the interactive nature of structures and home management subsystems. We believe that higher education has a responsibility to acknowledge that adult learners, especially those who are trying to juggle home, work and school, have very complex needs and that there are many ways in which colleges and universities can help.

The integration of this subject matter within courses across the university curriculum whenever possible is one very appropriate and somewhat simple way to respond. The interdisciplinary model for a college course in helping adult learners approach the management of home subsystems is a more direct response which could have multiple positive outcomes for the students as well as the university.

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WE DON'T KNOW WHO DISCOVERED WATER, BUT WE KNOW IT WASN'T THE FISH

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With a great sense of relief, I can now confess that for more than a decade, I was a closet interdisciplinarian. With great discretion I had to be sure that my courses had proper numbers, and titles serenely fixed in the catalog. With that guise, I could then attempt to intersect formal education with learning by merging many disciplines through in-depth study of Media, not single lower case media like film, radio, or television. This Media, Lewis Mumford would call Technics; this Media, Marshall McLuhan would clarify by saying, "First we shape our tools, and after that, our tools shape us." Now because of this conference, I may emerge into academic sunlight, and proclaim that as a happy generalist, I am entitled to invade any discipline. Although the course may still be modestly, English Literature 160, "Theories of Communication", my students learn that many of the old categories exist as the Emperor's new clothes. And, if we don't know who discovered water, but we know that it wasn't the fish, then I point my students toward the nearest shore so that they may become fish out of water.

The title of this paper, borrowed as many of the concepts are, from the late Marshall McLuhan may be translated in this way: The daily environment is invisible; the most relevant, but most difficult information to acquire is that which surrounds us. The past is easy to see--fixed, and comfortable. The future is infinitely shapeable, but also threatening. To minimize those threats, one must shape the present to achieve a desirable future, but before the present can be shaped, it must be perceived, and that is extremely difficult.

To demonstrate that the present tends to be invisible I shall use two examples. The first concerns an electric toothbrush, and my then four year old son. Some semi-distant relative had given my family, for some obviously hygenic reason, a rechargeable, vibrating handle with a supply of interchangeable tooth brushes. My son had grown up with this type of toothbrush, and one night, I said "Go upstairs, wash your face, brush your teeth, and come down to kiss me goodnight." A few minutes later, he called down, "I can't brush my teeth." When I asked, "Why not?" he replied that the toothbrush was broken. I said nothing, went upstairs, and verified that the handle did not vibrate. Still silent, I placed my son's brush on the dead handle, placed the handle in his hand,

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put paste on the brush, and guiding his hand so that the brush would move up and down against his teeth, proceeded to brush them. His eyes widened, and he said, "Oh, _I_ can brush my teeth."

The second example of the invisible environment concerns the telephone, and myself. I had grown up with telephones. I had, on vacation, used telephones that had to be hand-cranked to reach the operator who was called _Central_. I remember with affection local pay phones that only took a nickle; I have called tobacco shops to see if they had Prince Albert in a can, and that he should be released before he suffocated. I remember when S.I. Hayakawa was campaigning indignantly against the 7 digit phone number because 7 digits were dehumanizing; for how many people has the 7 digit number always been the only way of phoning? The phone, always a part of my life, was hence, invisible. One day, however, I decided that I did not want to answer the phone. Both my sons were well, and in school. My wife was well, and working at a new job. I was alone in the house, and I had no reason to answer the phone. I had just come in from the yard when the kitchen phone began to ring. I did not answer the phone, but I began to swiftly, and sneakily, tip-toe out of the room; I did not want the phone to know that I was there. When this subconscious, guilty behavior became conscious as I reached the other room, I laughed loudly at the invisible control of that medium. The next time, later that day when the phone rang, I boldly walked up to it, and made obscene gestures (Not until I was writing this did I realize that I had not said anything that the phone might have overheard.)

This invisible environment surrounds all of us, all of the time, and frequently prevents us from perceiving relevant data. There are, however, some techniques which help to make the present environment visible. These techniques, and the awareness which they foster are extremely valuable to business, industry, politics, education, and even the military, remember the Maginot Line. One of the techniques is to examine the initial impact of a medium; this technique is especially useful to apply to media which still play a major role in the present. Thus, we can eliminate the buggy whip, the ice box, and the scythe, except for quaint, and decorative purposes. There remain, however, enough powerful examples to reinforce the idea that most people are never taught to think about the media that teach them.

The most powerful, and most invisible medium in Western Civilization is the phonetic alphabet. It is the basic organizing medium of Western Civilization. The phonetic alphabet, an archetypal inter-changeable part, is rarely seen as a technology that shaped the structure of history; history is what can be written, frozen in time, and the phonetic alphabet made writing easy. One, at this point, might think about the difference between chisel and stone as opposed to ink and papyrus. Writing ended the common oral/aural knowledge of tribal society and began a society of individual power through private knowledge--"book larnin."

We take this amazing technology so for granted, that we have conferences which assume a literate audience and request a written document to be published, at times with a bibliography which is, of course, alphabetized. I can safely say in March as I write, that when we arrive in May, our name tags will be organized A through Z. The alphabet, powerful and invisible has shaped Western Civilization since it became pervasive in 5th century B.C. Athens. As Plato predicted, it caused us to lose our memories, but it made possible preservation, and transmission of knowledge. It made possible organization of the Christian Church. Cleric and Clerk, cognate words, indicate the ability to read and write. Literacy is power; Benefit of Clergy lasted well into the 19th century.

The second most powerful organizing medium of Western Civilization is the clock, and how invisible it is. I am sure, however, that any Extra-terrestrial Intelligence observing this country for the last fifty years would empirically conclude that the dominant life-form in this part of the globe is the glass-faced metal disc carried by an organic, bipedal, servo-mechanism near the end of its upper left appendage. This disc is consulted frequently for obviously compelling information, as the organic servo-mechanism rushes to depart, or to arrive. The wrist watch, however, was considered an effeminate time-piece until World War I when it gained machismo by being synchronized for artillery barrages, and sorties into no-man's land. Abstract time however, did not seriously begin to affect Western Civilization until about the 11th century when the clock tower and bell began to organize the day. The impact of diverse technologies for the same end becomes apparent when one thinks of the Chinese telling time with incense. When is it half-past sandalwood or ten to cedar? One can also see the difference between people who wear analog watches--they say, "Oh, it's about 20 after," but those with digital watches say, "It is 12:18." If at this point, you say that I am dealing with the obvious, I would reply, "Think of a world without time-pieces and you will begin to observe the invisible present."

Of particular invisibility is printing; how it is taken for granted: programs, proceedings, menus and, of course, books. My students, young and old, are shocked when I tell them that before printing, if they wanted a book, they would have to find someone to read it to them while they wrote it out by hand. That information is especially impressive early in a term when students are carrying four or five books.

Until this point, I have been considering examples of technologies making immense changes, but even less dramatic media are significant. Before Fahrenheit perfected the thermometer, humans had four temperatures--normal, hot, hotter, and dead. The process for making plate glass permitted not only windows, but also mirrors which contributed to introspection, long distance signaling, and vanity. Before automobiles there was no need for auto insurance; before the telephone there were no call-girls, and so on. All media become pervasive, and as they reshape our lives they fade into the invisible environment. The medium of language made us human, and each of us has received this gift for nothing--just for being human.

Broadly, the history of the human species can be divided into four periods. According to Jacob Bronowski, two million years ago there were no humans, but one million years ago, there were. The first, and by far the longest period, was from the beginnings to about 500 B.C. During this period, everyone knew everything that everyone else knew because they all learned it by hearing it. Then the phonetic alphabet brought literacy. During the second period, 500 B.C. to 1450 A.D., the literate oligarchy dominated. Then the printing press began the 3rd period making it possible for all to read and ultimately forcing everyone in this room to attend school and to read books. About 1950, electronic media began to challenge five hundred years of "readin, ritin and rithmatic." We are now only thirty-seven years into the fourth period of human history and already those tools which have shaped this period have become invisible. Americans, on an average, watch television almost as much as they sleep--seven hours and fourteen minutes. High school graduates spend more time in front of TV than they do in classrooms. The high school graduate has seen approximately fifteen thousand murders and untold numbers of cars crashing on TV. Life without television is unthinkable especially to those under thirty. (I could almost add, don't trust anyone under thirty.) All of us instantly know when there is a mud slide in Peru, a nuclear accident in Chernobyl, or a hostage taken in Beirut. The President of the United States has a hot-line, (all of us know it is a telephone--HOW DO WE KNOW THAT) to the Kremlin. How different was Thomas Jefferson's saying "We haven't heard from Ben Franklin in Paris this year; we ought to write him a letter."

My late father was born ten years before the Wright brothers flew at Kitty Hawk. I have met the telegrapher who sent the news of the flight, but that wasn't the important story that day; the big news was that a U.S. submarine was aground off Cape Hatteras. Just eighty-four years after that first flight, it is only a question of money if you want to fly to Paris for lunch and return home for dinner. My same son who learned to brush his teeth unassisted by electricity was, at the age of nine, disgruntled because he had to change planes in St. Louis rather than fly directly from Pittsburgh to Tulsa. That humans could fly was obvious from his earliest days.

Equally obvious to him, if not to me, are computers. The only thing that I wish to say about computers, (other than that my sons know more about them than I do) is taken from a decade old National Geographic. It said that if man's ability to fly had progressed at the same rate as computers are progressing that the Wright brothers would have flown in 1903 and humans would have landed on the moon in 1908. We are now, as Carl Sagan says, returning to the stars, and one of the most important ways to see the present is to remember that news, as we know it--especially on television, is Bad News. The Good News is generally in advertising, public relations, technology, and science. Perhaps Henry David Thoreau's advice is appropriate here, "Don't read the times, read the eternals."

Anyone who becomes a student of Media begins to see more clearly into the present. The first step in the discovery of the present is to realize that it is hard to find. Fostering that attitude is my main objective in English Literature 160, and now I can shout it to the world.

The only way to know that the water is there is to practice being a fish out of water. Here is how to begin:

I. Tonight turn on no electric lights
II. Don't listen to the radio for a week
III. Unplug your television for a month

During this period keep a journal; of course, that will be written in the phonetic alphabet. Then memorize the journal; after it is memorized, burn it. Start the fire by rubbing two sticks together.

THE ASCENT OF OLDER, NEW STUDENTS

Norman N. McWhinney

And college campus can serve a symbiotic role by bringing intellectual ferment to non-traditional students while increasing the potential FTE population. An easy, and exciting way to get non-traditional students on campus is by providing an informal course based upon the Jacob Bronoski film series, The Ascent of Man. As an evangelical aficionado of this series, organizing, and promoting the course was a labor of fond.

An ad in the local paper proclaimed that a 13 week film series, to be shown in the campus auditorium, was open to everyone, and that no text, nor tests would be required. After the film, however, the audience could choose to remain to discuss the film with coffee, tea, and a moderator. As further incentive for enrollment, the fee for the course was kept under fifty dollars.

My real reason for presenting the course was, simply, that I wanted to see the series again, but on a larger screen. The results of the course, however, exceeded any expectation. Over 30 people ranging in age from 26 to 74, most of whom had little or no post-secondary education, created fervent discussion. Although I had prepared a list of questions about the first film to begin discussion, I never got to use any of them. After a brief break to get coffee, those who remained (the majority) regrouped in a circle. Before I could whip out my list of questions, a grey-haired gentleman said, "I don't think that kids today would appreciate what Bronoski is saying." In reply, a younger woman asked the previous speaker, "What do you think Bronoski's major point is?" I had to rush in and start "moderating;" the group could have gotten along without me, but, I kept telling myself, not as well. For the next 12 weeks, all I did was direct intellectual traffic, and separate a few hooked bumpers. On some evenings, the discussion was so extensive that I had to call a halt to the session so that security could lock up the building. At the last meeting, some of the group proposed that we take a month off, and then start the course again with the first film because now we had perspective of the entire series, and could really appreciate the concepts. I handed them a schedule of formal courses for the next term, and told them that if they were not interested in formal courses, they might become friends of the campus library for a small annual fee, and use all of the library's resources.

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The group really hated to break up; they unanimously agreed that it had been an exciting, and stimulating 13 weeks--in spite of the moderator. I think that the next time that I offer this course, I shall be prepared to follow it with a similar course based upon the Civilization, or Cosmos series. I enjoy not reading essay examinations.

(A sample ad for newspaper, or course-offering booklet follows)

THE ASCENT OF MAN

(An Informal Seminar in the History of Ideas)

This weekly seminar, which has neither tests, nor text, will involve its participants in the range of human intellect as presented by Jacob Bronowski in his film series, The Ascent of Man.

Each evening will begin with the presentation of a film (52 min.) from the series. Then, after a brief break, a round-table discussion will be moderated by the host for the evening, Dr. Norman N. McWhinney of the English Department. The discussion of ideas generated by the film, and shaped by the interests and enthusiasms of the participants will last for an hour or so. In all probability, the ideas will resonate forever, and those who read the book, The Ascent of Man, either before, during or after the seminar will profit even more, but the book is not necessary to benefit from the seminar.

The titles of the films give a small indication of the range, and excitement of the ideas presented:

> Lower than the Angels, The Harvest of the Seasons, The Grain in the Stone, The Hidden Structure, Music of the Spheres, The Starry Messenger, The Majestic Clockwork, The Drive for Power, The Ladder of Creation, World Within World, Knowledge or Certainty, Generation Upon Generation, The Long Childhood.

* * * * * * * * * * * * * * * *

This seminar will last thirteen weeks, beginning September 14. It will meet each Monday evening from seven o'clock until approximately nine-thirty in Powers Hall, Room 3. To register, complete the form below and return it with the $40.00 registration fee to:

Informal Series
University of Pittsburgh at Greensburg
1150 Mt. Pleasant Road
Greensburg, PA 15601-5898

ASCENT OF MAN REGISTRATION FORM

NAME: ____________________________
LAST FIRST MI

ADDRESS: ____________________________
STREET OR RURAL ROUTE

____
CITY STATE ZIPCODE

PHONE NO: ____________________________

Make checks payable to "University of Pittsburgh at Greensburg".

ADULT EDUCATION IN THE MIDDLE EAST

Kamal K. A. Nimer

The Middle Eastern Countries do have a history of ancient mosque-universities that offered a high quality level of adult education. In the seventh century, Islam made education an obligation on each muslim, male and female. The first word which revealed in Qur'an, the Book of last revelation, was "Read". The token of that society became: "Seek knowledge from cradle to grave". Campaigns against illiteracy started when the Prophet asked the captives of the battle of Badr, in order to be freed, to teach ten muslims reading and writing. The Prophet himself was the first adult educactor in Islam. (Ahmad 1968:29). Dar al-Arqam was the first adult education institute in Makkah. As a result of the increasing number of adult learners in Madeenah, the mosque became the place of worship and education for adults. Since that time, the mosque played an important role in teaching adults and children as well. Umayyad era, Muslims prefered to keep children learn in 'katateeb - houses designated for education-, and to keep adults only learning at mosques. (Abbood 1977:112).

Ghunaimah (1953:33) enumerated many mosque-universities which took care of adult education since the early days of Islam. Among those were: The mosque-university of Madeenah in the seventh century, al-Masjid al-Jami in-Basrah/Iraq, al-Msjid al-Aqsa in Jerusalem, the Umayyad Mosque in Damascus/Syria, which was established in the eighth century, al-Zaytoonah mosque-university in Tunisia, which is considered the oldest university that still exists, al-Qarawiyyeen university, to which students from all parts of Europe used to come, and it used to have 330 branches all over Morocco, al-Azhar university, which was established is Cairo in the tenth century, and Qubbat-Ali University in al-Najaf/Iraq, which used to be the greatest Shiya'at university. (Ibrahim 1984:20).

It is important to metion that Jozee, the Russian, and the Frenchmen, Wolven and Rolmayde assured that Europe did not start establishing universities before the twelfth century. Before that they used to study the Islamic mosque-universities. (Ibid)

In addition to universities, there were many great schools which started teaching adults and children in the eleventh century. Al-Nithamiyyah School, which was established in

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1065 in Baghdad/Iraq, was the most famous school at that time. It used to have many branch in Syria, Egypt, Khurasan, and North Africa. (Abbood 1977:114).

Unfortunately, this tradition did not filter throughout the Middle Eastern population over the years. The seventeenth century witnessed the beginning of their decline. But the last century was the worst in the history of this area, politicaly as well as educationally. (Al-Mubarak 1980:57).

Nowadays these countries are in a tragic situation. In spite of the tremendous economic resources which they possess, and the deep-rooted cultural inheritance, the majority of their population is not able to take advantage of these privilages, because of the population's low educational levels. The majority of adults is illiterate and about half of their children do not have the opportunity to enroll in the elementary school. (Afifi 1973:15).

Illiteracy in these countries concentrates among the productive groups. Illiterates participate in economic and social fields in a limited effort as a result of their illiteracy. Therefore, it is very important to educate this section if these societies want to move forward. (Hakeem 1982:7).

Adult education in these countries is known as "each nonformal education which is offered to persons aged ten years or over, who are not studying in the normal public or private school". (Hakeem 1982:30).
Adult education synonymous to eradicating illiteracy. Therefore, efforts in this field are mainly directed to arranging campaigns against illiteracy. According to them the minimum level for any citizen is to be able to read and understand a paragraph from any daily newspaper, to express himself by writing one paragraph correctly, and to use numbers in a simple way for daily survival". (Ali 1977:100).

In the whole world, illiteracy rate had dropped from 39% in 1960, to 29% in 1980, and is expected to decrease to 25.7% in 1990. The absolute number of illiterates aged 15 and over has increased from 700 million in 1960 to 824 million in 1990. In the case of the Arab World, it is expected that 57.5%, of its projected 300 million people in the year 2000, will be illiterate. Eventhough illitercy rates among both sexes in Africa is higher than any part of the world, illiteracy rates among women in the Arab world is higher than any part of the world including Africa. According to UNESCO, the femal illiteracy figures for some countries are as follows: Egypt 58.8%, Syria 61.5%, Lebanon 32.3%, Sudan 93.5%, Saudi Arabia 97.7%, and Yemen 99.5% as projected for 1980. (Unesco 1978:105). The following table shows the numbers and the rates of illiteracy for those who are aged 15 and over in the Arab World:

Year	Population	Percentage of illiteracy
1960	52,000,000	81.7
1970	67,000,000	73
1980	92,600,000	62.6
1990	131,100.00	57.5

Educational statitics for the same age group, for 1982, indicates that illiteracy rate was 62.1%. These rates are hi her among women, as they appear in the following table:

Country	Males %	Female %	Total %
Yemen	74	98.5	87.4
Saudi Arabia	69.9	97.7	83.8
Oman	---	---	83.1
Qatar	---		80.5
Algeria	46.6	72.6	59.9
Iraq	28.8	69	48
Tunisia	28	61.5	47.9
Jordan	11.7	38	24

There are many complicated factors such as social, historical, cultural, economical, and political, which lead to the above rates.

One of the main social factors is not to provide women with adequate effective education. As a matter of fact, this is among the major problems facing the developing countries in general, and the Middle Eastern countries, in particular. A secondary value attached by parents in educating women, is the family socio-cultural structure. This is the main force which shapes the attitude of nomadic and ruralparent toward the education of the girls. The attitude, that education is unneccessary for women, stems from the traditional convention that the place of women must be in the house. this attitude is shared by the majority of men, even some highly educated ones. (Nimer 1986:90). Thus we found between 1960-1970 that the numbers of illiterate men increased by eight million, and the same period witnessed an increase of forty million illiterate women in the Arab World.

The status of adult female education, in these countries, is often assumed to be based on a religious doctrine steming from a misinterpretation of Islam. But according to Islam, which these Muslims are ignorant in, the role and status of women as wives and mothers, does not require that they be left uneducated. The slogan which Muslim educators raised was 'By teaching a man we teach a single person, but by teaching a woman we teach a whole family'. As a result of that, when Islam came there were only five women who knew reading and writing. But the numbers of highly educated women increased since the first years of Islam, and continued for many centuries ahead. Ibn Sa'd enumerated 700 women who narrated the Prophetic traditions, and Ibn Hajar enumerated 1543 trustworthy scholar women. (Farid 1976:9). Women became teachers and professors. They used to lecture in mosques and public places as well.Middle Eastern people ignored these facts nowadays. Therefore, they consider women as homemakers and men as breadwinners. The main responsibility for the family and home falls upon women, who get married at an early age, and the work in the home takes precedence over the need of education. Moreover, illiteracy among women in the rural areas is going from bad to worse, because women's labor in farms is needed. This does not allow them the time to attend adult literacy classes. Further, family discrimination in educating males, rather than females, is also among the prblems of adult female education in these countries. (Isma'eel 1980:175).

Psycholigical, political, and historical factors are interwoven with social/economical factors. As it has been said in America that "It is imposible for an old dog to learn new tricks," the widespread belief in the Middle Eastern countries nowadays is that "Teaching a young person is as easy as writing on water, but teaching an adult is as diffecult as engraving in a rock." As a result of this common belief, any adult wishes in joining adult literacy classes has to hear many discouraging opinions, which has to overcome if he has to continue in adult education programs. The lack of political commitment in the majority of the Third World countries is proven to be a major obstacle to developing a role for adult education in social, political, and economical change. Adult education is a development process and is therefore intensively political. The political nature of adult education has been made apparent in recent years through a questioning of the concept of development it self.

In the case of the Middle Eastern countries, many kings and presidents think that it will be safier for them to deal with illiterates. Therefore, many of these countries still does not have compulsory elementary education laws. This causes many children to dropout from elementary stages. If we add to these dropouts, the millions of these who abstain from enrollment in this stage, we find that those children represents the main stream of illiterates in these countries. (Nimer 1986: 209)

In addition to the above factors, there are many other obstacls, which hinder the efforts of eradicating, or at least decreasing, illiteracy in the Middle Eastern countries, such as the lack of a suitable curriculum, well trained teachers, and flexible plans. Those and similar serious problems should be solved immediatly, if these countries are sincerely willing to eradicate or decease the rates of illiteracy in a reasonable period of time.

Recommendations

Abstention, absenteeism and dropout are the most dangerous threats to the adult education programs. Abstention and absenteeism can be reduced if center administrators have a better understanding as to why participants do not attend classes. Studies should be done to determine which factors contribute to the dropout rate.
In the rural areas it has been found that harvest times, lack of interest, lack of motivation, unqualified young teachers, child care problems, inadequate facikities and inconvenient times of class are the main reasons for dropout. To help in solving the problems which affect adult education child care facilities should be available to women attend literacy classes.

With regard to teachers, steps should be taken in the area of teachers education to prepare good teachers.
With reference to financial resources, which are substantial for a successful adult education programs. Capital expenditures are inevitable. There is a need for a fixed financial base which would provide adequate funds for existing and future programs. There is also a need for cooperation in planning among the Arab countries. Cooperation should be in all areas of mutual benefit, especially in the area of education, since there is so much exchange of labor throughout the borders.

Educational planning in the Middle East started in 1960, with a conference held in Beirut with cooperation of Unesco, at wich the neccessity for planning was discussed. For the same purpose UNESCO later held conferences in Tripoli in 1966 and Morocco in 1970. Plans are still uncoordinated. For example the ministers of education in Arab countries in the Sana conference in Yemen, recommended in 1972 one plan to eradicate adult illiteracy in Jordan, Kuwait, Lebabon, Bahrain, and Qatar Between 1980 and 1985. Another plan was recommended by the same conference for Saudi Arabia, Sudan, Somalia, Yemen, and Oman with target dates of 1985-1990. The summit conference held in Jordan in 1980, agreed upon a proposal offered by Arab League Educational, Cultural, and Scientific Organization, to eradicate illiteracy in the Arab World within 15 years. These plans, as with many others, was never accomplished. Article 150, of the 1950 Syrian constitution, states: "Illiteracy must be eradicated within ten years." Egypt and Sudan said the same thing in 1944, though neither country has been able to accomplish this lofty goal. The lack of reasonable planning is the most dangerous deficiency in developing literacy programs.

In order to fulfill any plans, goals must be attainable. All such plans should first be preceded by adequate research into the needs.

Use of mass media is suggested as a helping factor in the field of adult education. Print, nonprint, popular and traditional media are powerful tools for literacy work. Media may be used to promote literacy and post literacy. The audience-the learner- should be the focus. The media, as other teaching- learing aids, are a waste of time if they are not based on the learner's characteristics, needs, and desires.

Radio is one of the most useful medias since it is the cheapest means to reach large numbers of the population, including the illiterate and isolated. Although radio may reach a large number of people, it can never replace the individual teacher who provides immediate feedback and personal instruction to the learner.

A television, video tape, and tape recorder are also useful devices for teaching adults.

Teacher training and curiculum are in need for improvement. The maintenance of an adequate staff is one of the most serious problems in adult education. It is a universal problem. Literacy reports from every country cite the lack of well trained adult education teachers as a major obstacle to successful and sustained literacy achievement. This improvement in this phase is deemed essential.

Well qualified teachers are an important factor in attracting students to adult literacy classes, and helping them attend until the end of the course. Teachers should be prepared and trained cotinuously to enable them to deal with adults in a diffrent manner than with younger students.

In the Middle East, there is a serious lack of reading materials, specifically designed for the adult learner. Books and curricula should be closely related to the present and future needs of the learner, to his/her daily life, work and interests. Books should be lively, attractive and illustrated with stories about people from various segments of society including people like themselves. The goal is to provide self motivation to make learning enjoyable.

Lack of community involvement is another problem in these traditional societies which needs to be solved. No compaign, project or program can be sustained without the participation of the people it aims to serve. Local support, with community members planning and implementing their own program is essential. Recently many countries have begun to stipulate in their policy planning that participation must be voluntary and that the people most concerued-the illiterate-must be stimulated on the basis of individual and community responsibility.

Formal or informal community groups such as cooperatives, unions, social centers, women's groups, youth organizations. thraditional and religious fraternities,can help promote mass participation in literacy education when they combine eforts with governments. In other words, literacy programs work well when an existing people-based network accepts the reponsibility for literacy action. If that network cooperates and works closely with governments there is a far greater likelihood of succese in carrying out of the masses, make the effort alone.

Shortcomings in recruitment is another problem which need to be solved. An active rercuitment is essential. The best teachers, the materials, and the best facilities are worthless if students are not aware of the program and encouraged to participate.

An inability to help some adults meet their personal goals is another problem which must be solved. The best way to retain students in the program is through a high quality program which successfully helps students achieve their personal goals. It is most important to an effective program to retain students in the program. Awards, certificates, and celebrating religious and social events help sudents feel that they are a part of the program.

To conclude, illiteracy in the Middle Eastren countries will continue to represent a lasting problem for decades to come. Various sincere efforts should be taken immidiatly in the field of adult education to eradicate or decrease illiteracy among both sexes in general and among women in particular, Such an eradication of illiteracy will demand both immidiate efforts and consistent efforts into the future..

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MINORITY MULTICULTURAL EDUCATION: SUGGESTIONS FOR CONTENT AND APPROPRIATE PEDAGOGY

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Introduction

Given the current confusion and controversy in the scientific and non-scientific literature regarding the definition of minority, we begin by explaining how we use the concept in the following discussion. While we recognize the existence of White ethnic groups and feminists' claims to minority status (and, indeed, the discriminatory behavior they have experienced), we focus on non-European American minorities--more specifically, those groups which have been traditionally excluded from the mainstream curriculum of higher education in the United States, that is, African Americans, Hispanic Americans, American Indians, and Asian Americans. We agree with feminist scholars who argue that women and women studies are also excluded. However, we recognize that women studies scholars are producing an increasing quantity of literature which addresses their concerns. At this time, we feel safe in asserting that the women's studies movement is experiencing significant success in establishing itself in the academic community. Multicultural studies concerning the groups comprising the focus of this discussion experience a rather insignificant degree of inclusion. We also recognize that Asian American students are disproportionately represented among the high achievers according to S.A.T. scores; yet the study of Asian American people and cultures in the United States is not a major academic discipline in most American colleges and Universities, thus, their inclusion among the groups discussed here.

Significance of Minority Multicultural Studies

Before discussing or making suggestions for content and pedagogy, we think it important to raise the question of the significance of minority multicultural education. We seek to demonstrate that the answer to this question of significance is connected to the development of pedagogy and revisionist content. We think that one can recognize each of these groups as having been perceived and reacted to as *outsider-pariah* groups by mainstream White Anglo-Saxon Protestants and their European counterparts. This relegation to such *outsider-pariah* status occurred/occurs because of these groups' darker skin pigmentation, their non-European native languages, their non-Judeo/Christian religions, and their non-voluntary methods in becoming Americans.

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The latter point refers to European Americans waging wars against the indigenous Americans and Mexicans to take away their rights and their lands; transporting Africans involuntarily into America as slaves and unpaid agricultural workers; and forcibly conscripting Asians to build railroads. In essence it is necessary to recognize that these non-European American groups were not a part of the British and Western European imperialist, expansionist conquest of "new" lands. Rather, these groups were the victims of this expansionist process, and the European Americans then rationalized and legitimized their actions against these people on the basis of physical differences and a theory of *white supremacy* reinforced through Eurocentric cultural arrogance. Thus, one of the greatest ironies of United States history and contemporary life remains its belief in freedom, equality, and democracy while simultaneously institutionalizing racist, exploitive practices and policies toward peoples of color who have been forced to reside within the nation's boundaries.

As Newton's Law would have it, the racist, exploitive actions produced a variety of political struggles for human, civil and cultural rights in reaction to this contradictory, hypocritical social pattern. The Civil Rights/Black Power movements of the '60s represented the most recent expressions of these political and cultural struggles. These movements culminated after a century of various forms of protest activities for the citizenship rights of non-European American groups--fundamental rights which the 14th, 15th, and 16th amendments of the United Sates Constitution supposedly guarantee all citizens of the United States. Once European Americans subdued the American Indians and Mexican Americans, African Americans became the largest *outsider pariah* group and receptors of the most intense repressiveness. Quite predictably, then, African Americans became the most visible in the forefront of these struggles.

The 1960s witnessed the rise of political and cultural movements by many groups. The Civil Rights/Black Power movements in concert with a rather large anti-war movement, women's movement, Native Americans' Movement, White students' movement, and other more radical leftwing groups' activities created a political climate which had to become more receptive to the demands for justice and equality. The federal government and elements from the private sector initiated and endorsed numerous policies and programs designed to expedite African American and other non-European American groups' inclusion in the "mainstream of American life." The establishment of Black and other Ethnic Studies departments and programs on college and university campuses represented one of the cultural objectives the movements had pursued. Initially, the host institutions relegated these "ethnic" programs and departments to the periphery of the curriculum. However, due to the changing demographic trends which indicate that these non-European American groups will comprise a major proportion of the student population and labor force by the turn of this century, these "ethnic" areas of study have become more vital and necessary. Africana (Black), Hispanic, Native American, Asian American disciplines along with Women's, Multicultural, International and Global Studies constitute the major curriculum reform movements in contemporary higher education in this country. One special mission of Africana (Black), other ethnic/cultural, and gender studies is to make higher education more accessible and attractive to larger numbers of women and non-European American students.

Scholars active in the multicultural, international, and women's studies movement and educational researchers, political leaders, and minority community organizations emphasize the need for curriculum reform and revision. Many perceive the current liberal arts core curriculum as essentially culturally biased and male chauvinistic, reflecting Eurocentric political, economic, socio-cultural values, beliefs, and practices. As such, the core curriculum ignores three-quarters of the world's population and arrogantly presents Eurocentric content and pedagogy as universal and superior to all in present and past cultural systems. Even when the curriculum introduces other civilizations, such as ancient Egypt, it fails to note even the most basic geographical reality--that Egypt is in Africa which must imply, therefore, that the contributions Egyptian civilization gave to the world have African origins.

These cultural scholars and activists have noted further that the Eurocentric curricular values affirm culturally reprehensible behavior associated with racism, classism, sexism and imperialism. Revising the curriculum to include multicultural, feminist, and global studies corrects the biases, distortions, and inaccuracies which pervade what students now receive as *ultimate truth* and *knowledge.* Including the reformist/revisionist perspectives forces liberal arts scholars to confront the neglected and omitted realities which emanate from the experiences of the *outsider-pariah* groups. In so doing, the new reformist/revisionist perspective reveals a different image of United States history and culture--an underside which contradicts the democratic egalitarian portrait the existing curriculum presents. The revised curriculum forces scholars and students to confront the issues associated with cultural diversity and the fundamental difference those variations make and challenges the underlying assumptions embedded in the "hidden curriculum." The revised curriculum introduces an alternative vision for a more humane, peaceful, egalitarian and just society. Essentially, then, the revised curriculum attempts to provide a different response to the question of "knowledge for what?"

Minority Multicultural Content and Pedagogy

Having established a contextual framework, we now turn to the issue of minority multicultural content and pedagogy. The preceding discussion suggests that to include the minority multicultural content and perspective we must adopt a cultural conflict/struggle approach. Ideally, we should introduce the study of minority cultural experiences through a general discussion of the historical origins and processes associated with civilizations. This suggestion holds if liberal arts scholars accept the fact that civilization means the organization and the necessary material resources to sustain and reproduce a large population in which cultural conflict is inherent since civilizations as we know them emerge from wars with and conquests of different peoples. As such, civilizations are characterized by the processes of cultural imposition and dominance. Diverse populations and cultures become forced to submit to the authority and control of a militarily more powerful group. Thus, civilizations are created and maintained by the abilities of the ruling cultural group to maintain its position through its monopoly over the use of ultimate force.

Over time, the presence of this overt dominance becomes minimized as the conquered groups adapt to and/or adopt the cultural belief system of the ruling group. Cultural beliefs and practices, of course, are resilient and enduring. Thus, the adoption or assimilating process rarely occurs completely: residual elements remain alive among the culturally repressed groups and become expressed in a variety of forms ranging from the maintenance of traditional religious beliefs to food, dress, language, familial values and practices. This dynamic of adoption of or adaptation to the dominant societal norms juxtaposed with retentions of traditional cultural traits creates situations of conflicts between the oppressed groups and the oppressors as well as tensions within and between the oppressed groups. Incorporating multicultural experiences and perspectives, then, requires an awareness of the social processes associated with the evolution of human civilizations as well as knowledge of the diverse groups comprising the population; and, most importantly, the role that the various groups played in the development of that civilization; that is, conquered indigenous people, slaves, voluntary and involuntary migrant laborers, mercenaries for the conquering armies, etc. The type and intensity of cultural tension often varies according to these factors.

Applying this model to the non-European American groups' experiences in this society and culture allows us to appreciate the commonality and differences between and within the groups. All non-European American groups experienced cultural conquest, imposition and transformation through forced adoption of the dominant culture, yet managed to maintain elements of their traditional culture. Their physical and cultural differences serve as constant reminders of their entry into the dominant sectors' social system. Their imposed second-class citizenship glaringly illuminates the distortions and false interpretations of the dominant group about the nature of this "just" society. The gap between democratic ideals and brute racist sugjugation has been labeled the "American dilemma." Non-European Americans' presence reflects America's emergence as part of European imperialism and domination through the redistribution of peoples of color according to the labor and land needs of the various colonizers, i.e. the importation of African slaves, Chinese and East Indian "coolie" labor, and the military conquests and annexation of native lands of the indigenous people of the Americas and elsewhere.

After seizing their own freedom, the "founding fathers" of the United States perpetuated essential elements of the British practices and policies by reproducing expansionists processes and proclaiming Anglo-Americans' imperialism as a "manifest destiny." Much American historical, sociological, and literary scholarship remains conspicuously silent on these issues while promoting the "cherry tree," virtuous portrait of the original founders. This type of scholarship reflects the intensity and depth of the cultural self-deception embedded in the existing liberal arts core curriculum. Multicultural, women's, and international studies seek to expose and confront this cultural self-deception as part of the quest to make the United States a more humane, just and socially democratic society. Individuals scholars committed to a peaceful, healthy, harmonious world must understand, accept, and teach about differences and the contributions those differences have made and will continue to make.

Minority multicultural studies requires scholars to examine the historical wounds which remain untreated in American society. Cultural studies' proponents advocate a need for scholarship that arouses genuine emotion in both the oppressed and oppressor groups as each deals with the pain and psychic turmoil emanating from the behavior required to play and maintain those colonized and colonizer roles, to use the terminology and concepts of Albert Memmi. Bob Suzuki, a leading proponent of minority multicultural studies, has suggested that such approaches and perspectives can be viewed as the conscience of the country in that they can help isolate the sources of friction and pain within the society while offering a vision for solution and healing. He argues further that minority multicultural studies constitute an excellent framework for incorporating international and global studies perspectives into the liberal arts curriculum. Through analyzing and interpreting the cultural heritage and contemporary social conditions of domestic minority cultures, scholars and learners will be able to grasp the extent and magnitude of the interdependence of the world's peoples. As liberal arts professionals assume the task of presenting the contributions of domestic minority groups to the political-economic and socio-cultural fabric of the United States, they will be able to demonstrate in sensitive and respected terms the unique contributions of the ancestors of the domestic groups. This approach requires a discussion of past and present geo-political systems and the roles they have played and continue to play in the global village called the world.

Case study: African Americans

As noted above, the major features of these processes have to be discussed in terms of a social conflict/change/transformation model. These processes occured between and within both the dominant oppressor groups and the subordinate oppressed groups. We use the African American experience to demonstrate the utility of the model. Revisionist African historians have documented that the Africans captured and then sold in the "new world" came from a variety of ethnic groups in West Africa. Many had been captured and sold as a consequence of the empire creating activities in West Africa which occured in the aftermath of the decline of the Sudanic Empires--Songhai, Ghana, and Mali. Thus, European slave traders benefited from the warfare between various contending African nations. The captured African slaves represented a multicultural group from the very beginning. Then in the Southern United States, slave buyers deliberately bought slaves from different groups which resulted in creating a greater cultural diversity within the slave community. The enslaved Africans spoke different languages, practiced different religions, and often came from different groups harboring hostile feelings toward each other. In addition, the colonists who bought these Africans came from different countries; spoke English, German, Dutch, French, English, etc.; belonged to different religious denominations, and represented different class orientations. The colonists also held poor Europeans and American Indians in servitude; and these latter two groups also came from many different places, spoke many different languages, and practiced many different customs and beliefs.

All this cultural diversity obviously affected the ability of the African slaves to form cohesive groups capable of challenging the power of their oppressors or of creating autonomous African inspired communities and institutions. African slaves in the United States had to submerge or transcend their individual cultural differences before they could function as cohesive groups. Multicultural tension and friction remained at the core of community life. When viewed in this perspective alone, one marvels at the ability of these individuals to achieve the unity and sense of purpose which supported and sheltered the creation of the social and cultural institutions such as strong family structures,the churches, social and fraternal organizations, the "underground railroad," Nat Turner's rebellion, and Maroon societies where the geographical terrain permitted.

From the colonial beginnings here, Africans in America were multicultural--genetically and socially--**new people**, a population produced by the colonizing process of military conquest and subsequent imposition of an alien culture. This colonizing process forged discrete culturally different groups into a **new people** with a particular position in the dominant conquering society. While Africans learned to play the role of "slave," they simultaneously developed group conciousness, awareness, a common bond--a **new culture.** However, this **new culture** connected with the dominant oppressors' culture symbiotically . Very much like dancing partners in which one dancer is a royal prince and the other his slave/serf, the two became mutually dependent upon each other. One could not exist without the other. Changes in one had direct consequences on the other. Thus, the oppressor males exercised their power and privilege over the oppressed women and the offspring which resulted changed both cultures giving greater substance to the symbiotic relationship. In the move from a social connection to a biological and social connection came the birth of new cultural actors who introduced new tensions in the oppressor/oppressed cultural conflict. These new actors created a new cultural status and group--African/Europeans, oftimes Indian too, oppressor and oppressed all in one body--disparagingly identified by the oppressor as "mulattoes or half-breeds." Du Bois's "dual consciousness" really refers to this bi-(and tri-)cultural composition of persons of mixed racial ancestry. We can only ponder the impact of this new cultural group on all of its constituent parts as it began to experience the discomfort associated with its contradictory existence--free and slave, Black and White and often Red too. This groups' very existence exacerbated the need for some form of resolution to the hostile, painful, oppressor/oppressed cultural struggle. It could not find peace, stability, harmony as a group which represented both the elite of the oppressed and the underclass of the oppressor. It held no authenticated identity, not as African, European, or American Indian.

The presence of this racially mixed group altered the caste and class relationships between the oppressor and the oppressed. It created an upperclass within the African American community based on lightness of skin, texture of hair, and prestige of the European who fathered the founding members. Numerous studies of African American life and culture document the triumphs and travails of the "mulatto elite." The "tragic mulatto" theme pervades the social scientific and literary productions of African American scholars, novelists, and poets. Individuals called the "mulatto elite" committed themselves to the anti-slavery movement and proved very visible among the political, educational, and religious leaders in the post-slavery, post-reconstruction eras.

The inbetween mixed racial group's presence disrupted the African Americans' class relationship with the dominant group when the white males exercised their prerogative to recognize and acknowledge their children. If they chose to do so (and many did so choose), their choice placed their mixed racial issue beyond the "normal" caste relationships. For example, lower caste African Americans realized physically harming the masters' offspring would incur the wrath and retribution of the white patriarchs. Lower and working class European Americans also feared harming or exercising the negative behavioral prerogatives on the masters' offspring which they so freely practiced on lower-caste African Americans. Readily apparent is the disrupting influences on the social structure due to the situation of this inbetween group in causing uniquely different conflicts and tensions, changing relationships, and creating **new people** and **new cultures** in this society.

The African American experience illlustrates how the colonizing process creates **new people**, new subcultures of different people who make a significant difference in the society. This process occurred on a vast scale during the slavery era and resulted in the formation of a variety of African American cultures in all of the Americas, including the Caribbean. The peoples and cultures of the West Indies, Latin and South America experienced the same cultural transformations outlined above. The tensions and frictions in these societies reflect many similarities. The major differences exist because of the cultural differences of the oppressor groups. However, with the emergence of the United States as the center of the world capitalist system, the African American community here reflects the greatest cultural diversity because of the continuous stream of Africans from various parts of the world who have added to the original diverse group. These inmigrations accelerated after World War I, increasing in each succeeding period, such that "urban" African American communities today comprise significantly large Caribbean groups from Jamaica, Barbados, Haiti, Bermuda, the Virgin Islands, Puerto Rico, the Dominican Republic, Trinidad, etc. While each group possesses similar cultural frictions within their respective communities, they also undergo rather intense frictions with members from other Caribbean, African and European American groups.

One of the most neglected areas of study in Africana (Black) studies and American sociology is this African American multiethnicity. Anyone spending time in the African American neighborhoods of Boston, New York, Philadelphia, Washington D. C. and Chicago must notice the growing presence of newly arrived Caribbean and Latino groups. Harold Cruse, John Walter and other social analysts discussed the significance of multiethnicity within the African American community. They focused, specifically, on the political friction between militant nationalist and radical Marxists West Indian leaders and the Booker T. Washington inspired accommodationist African American leaders during the Harlem Renaissance. Today, we face greater challenges, for these new Caribbean, Latino and African groups enter the established communities and intermarry with older and other African, Caribbean, and European American groups. The creation of more **new people** occurs. Hopefully, these newer groups will be instrumental in resolving frictions and tensions within their individual and between the conflicting cultures. These resolutions will be dependent upon a perspective that enhances the understanding of cultural differences rather than adherence to cultural homogeneity.

Conclusion

Understanding and interpreting the cultural heritages of these groups in a sensitive and empathetic manner requires the use of multiple disciplines anforging new ways of knowing. Thus minority multicultural studies demands interdisciplinary scholars. And, as noted at the outset, incorporating minority multicultural studies into the traditional liberal arts curriculum challenges the individual instructors to transform the Eurocentric white male chauvinistic dominated paradigm which is inherent in the content of their disciplines. Indeed, they must transcend the boundaries of that discipline. They must undergo a profound emotional confrontation with themselves in order to understand the impact that the cultural conflict between oppressor and oppressed groups has had on self-definitions; what they accept as truth, as justice. Incorporating minority multicultural studies can be the catalyst for initiating the personal and institutional transformation which must occur if we are to be successful in preparing present generations to live as equals among equals in the harmonious global village that is to be the future world society.

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WORKING, STRESS AND HUMAN VALUES: AN INTERDISCIPLINARY COURSE IN A NON-TRADITIONAL BACCALAUREATE PROGRAM

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and
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Abstract

This paper presents concepts essential to the development of an interdisciplinary, collegiate course on stress management in the context of work environments in human service systems. The paper includes: reasons for the timeliness of such courses, course development concepts, and expected student outcomes.

INTRODUCTION

Preventing problems before they occur is known to be more effective than attempting to remediate problems once they have taken root. This principle is applicable to human service and other professionals who readily develop stress and burnout phenomena as a result of working in systems which, because of the nature of contemporary problems and client needs, tend to promote stress among staff. And, if certain professions and environments lend themselves to stress moreso than others, additional fuel is added by the inherent characteristics of the types of individuals who are attracted to care- and service-delivery roles.

Recognizing that one of the most potent weapons against stress is the prevention of its dominant cause, that of unrealistic expectations of the professional, an interdisciplinary course was developed with a conceptual basis in an understanding of the mechanisms of stress and burnout, value perspectives, the nature of contemporary work environments and principles of behavior modification. Three critical components undergird the framework of the course:

* Career information -- identification of stressors and satisfactions encountered when working in human service systems;

* Stress burnout and management -- its nature and control; and

* Experiential learning of the modifications and mechanisms essential to stress management.

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COURSE DEVELOPMENT CONCEPTS

The course was developed as an experimental offering and was based on Honey Nashman's appraisal of students' need for a cross-disciplinary understanding of stress and burnout. As the supervisor for student teachers and for students in human services, Nashman witnessed numerous examples of professional behavior gone awry. Two particular incidents hit home. In one situation, a typically excellent and caring teacher hit a student over the head with a roll book for accidentally dropping a book and in another, an equally caring and capable professional responded inappropriately to a young client by yanking the youngster's ear. The seeds for a university course were quickly sown. Envisioned as a knowledge- and experience-based, preventive approach to stress management, the course was conceived as a way to prepare students to cope with systems' inadequacies and clients' needs with coping mechanisms supportive of the professional's health maintenance needs. Concepts of wellness were seen as the framework for knowledge and experience, in keeping the idea that programs should balance quality of life concerns with the intent of prolonging life (and professional practice affiliations) through healthful practices (Chapman, 1987).

The Course Description

The course description states that "Working, Stress and Human Values affords a rich and exciting academic opportunity to participate, and be of service, in the real world of work. It also provides insight into the recognition, prevention, and control of stress and the burnout syndrome. It offers a humanistic, conscientious inquiry into values, attitudes, and stressors associated with various professionals and professions."

Students are placed in professional work environments for a minimum of five hours per week. Placement sites are selected in accord with students' projected employment areas, including hospitals, schools, women's resource centers and shelters, day care centers, adolescent runaway shelters, government agencies and businesses. Seminars sessions are held each week and focus on discussion of relevant placement issues, results of independent study and assigned readings on topics such as the organization and mental health, the use of humor, and analysis of constituents of satisfaction in professional work.

Course objectives explain that, by course end, participants will be expected:

* To understand the nature of the physical stress and burnout phenomenon, and why it exists in humans.
* To identify the dominant stressors in your life.
* To recognize the facts of your own personality that relate to your experiences of stress and burnout

* To re-engineer your behavior in order to minimize encounters with unnecessary stressors and to achieve life goals and human potential in the most stress-efficient manner possible.

* To observe, record and discuss stress and burnout in a complex organization, utilizing your experiential participation.

* To explore and contribute to the humanistic perspective regarding the stress and burnout phenomenon.

* To examine the values implicit in professions and make meaningful connections between the world of work, the world of study and the world of leisure.

The required texts are INVESTIGATIONS IN STRESS CONTROL (Allen and Hyde, 1981) and ORGANIZATIONAL STRESS AND PREVENTIVE MANAGEMENT (Quick and Quick, 1984). Recommended readings include a variety of books which approach the issues underlying stress and burnout from different perspectives. Examples include: Charles Dickens' Hard Times, Barbara Gerson's All the Livelong Day, Graham Green's A Burnout Case, Michael Medved's Hospital, Arthur Miller's Death of a Salesman, and Studs Terkel's Working.

Each student is required to write an investigation-based term paper which analyzes a significant stressor in the work context and effective coping techniques for dealing with that stressor as based on his or her personality and lifestyle. Strategies are based on text information, readings and seminar discussions.

Seminar sessions include the identification and analysis of stressors in the workplace. Since these depend upon students' input, identified stressors shift somewhat from semester to semester. Typically, however, these revolve around norms and vulnerabilities in specific positions, requirements for change, coping with non-compliant clients, quantitative overload, coping with less competent colleagues, uncertain futures for particular positions, job mobility requirements, absence of predicability in the work situation, and client problems without solutions in light of family situations or limited family/agency resources. Specific examples frequently highlight agencies' inadequacies in meeting workers needs and the tensions which accrue from the clash between personal goals and the needs and requirements of a professional role.

Specific seminar sessions focus on students' identification of their own individual predisposition to stress. Categorized as personality factors, value orientation, work/emotional overload, nutrition-related, and life event, measurement devices are used to identify and analyze unique tendencies. Signs and symptoms related to manifestations of stress are examined in the context of typical "distress" effects and as based on case-study examples.

Students Enrolled in the Course

It is difficult to typify the students who elect the course, "Working, Stress and Human Values" since participants are drawn from various schools within the University. Students enrolled in programs in the Columbian College of Arts and Sciences, the School of Education and Human Development and the School of Government and Business Administration have participated in the course since its inception. The diversity of backgrounds and perspectives adds to the cross-disciplinary nature of the course and the experience-based insights of students who are employed adds enrichment. Viewpoints from many distinct backgrounds, work experiences and value systems add diversity and reality for the processing and testing out of information.

Since the course is now a permanent offering, a longitudinal study into participant effects is in the planning stage. The study is designed to evaluate the long-term effects of the course on students in light of their ongoing use or non-use of stress-reduction mechanisms and coping techniques.

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BIOLOGICAL AND LITERARY INTERPRETATIONS OF THE NATURE OF MAN

Frank P. Riga and Kenneth R. Barker

Introduction

This paper represents the general outlines of an interdisciplinary course that has been taught at Canisius College in Buffalo, New York. The course has always been team taught. It focuses on the interaction of science and literature and concentrates this study mainly on the 19th century, when discoveries in biology influenced every area of human concern. By teaching biology and the literature simultaneously, we have attempted to achieve, in the student's understanding of the topics presented, an effect which the teaching of each discipline separately would be incapable of. In practical curriculum matters, the course has allowed students to elect credit in either science or literature. At the College, students are required to participate in a core curriculum program, consisting of seven area studies. Among these seven are science and literature. Specifically, students are allowed to elect the course for science credit if they are non-science majors and for literature if they are science majors.

This course provides non-science majors with a general introduction to the content, philosophy, and methodology of biology and, at the same time, gives non-literature majors a general introduction to the aesthetic dimension of human existence through literature. The student's understanding of the process by which scientific judgements are made is fostered by a close analysis of the work of such important scientists as Charles Lyell, Charles Darwin, and Gregor Mendel. Close analysis requires the instructor to "work through" the texts in a kind of post-mortum demonstration, making sure that students see, not only the obvious surface meanings of the data and conclusions, but also how the scientific writer arrived at that particular structuring. In these readings, the student becomes familiar with a number of important biological principles. Among these are evolution, the most important, single, unifying concept in biology; development, including the biogenetic law, ontogeny recapitulates phylogeny; genetics, including a demonstration why the theory of Lamarck was ousted by the work of Mendel. Since the primary works read in science show how conclusions are drawn from the data, the student should develop an

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understanding, if not of the scientific method, at least of several related methods used by important 19th century scientists.

The student is also introduced to the content and form of literature by a close reading of a number of its masterworks. Through the study of these primary texts, he will examine how the content of literature is shaped by form and technique, and thus how the interpretation of literature grows out of an understanding of formal properties. The literature was chosen with one eye on its excellence and variety as literature (including prose and poetry, fiction and non-fiction), and with the other on its pertinence to the problems and concerns raised by the scientific context. We of course consider the scientific texts, especially those of Darwin, as important pieces of literature and assume that, in their analysis, we are doing literary criticism on another level. Many texts from literary naturalism illustrate how biology manifests itself in fiction, but we have been reluctant to select from such texts exclusively. In an essay such as Emile Zola's "The Experimental Novel," for example, what Zola gives us, finally, is not science, but something like science as a metaphor. This would certainly be important for literary and intellectual history, but we have preferred to see how far certain scientific ideas could be used in the interpretation of literature, or failing that, how the ideas in literature make some significant comment on science. Thus our reading list contains several unexpected pieces of fiction, and also several important essays.

One question that must be addressed early in the course, often in the first week of class, is, how does the content of science manifest itself in creative literature? The answer to this question varies, so to prepare students for it, several classical texts of poetry are read for their scientific content and to determine how that content conditions the poet's view of man. A good starting point is George Herbert's poem, "Man," in which the model of the cosmos is Ptolemaic. By placing the earth at the center of the universe, this model also places man at the center, so that the geocentric universe coincides with a system of values that is anthropocentric. A stanza from the poem should make this clear:

Man is all symmetry,
Full of proportions, one limb to another,
And all to all the world besides:
Each part may call the furthest, brother:
For head with foot hath private amity,
And both with moons and tides.

The universe, or the macrocosm, finds a correspondence in man, or the microcosm. With the emergence of Copernican astronomy, man's sense of himself altered. John Milton engaged the shift from the Ptolemaic model to the Copernican model in Book VIII of Paradise Lost, and though he was willing to have the archangel Raphael explain both systems to Adam, he was unwilling to have him decide which was right. Instead, Raphael advises Adam to "be lowlie wise: Think onely what concernes thee and thy being," and this, presumably, does not include deciding the correct astronomical model of the cosmos. By the time Philip Freneau wrote "On the Uniformity and Perfection of Nature" (1815), the cliches of Newtonian physics had been in the air for decades, and so his poem could wield such well-worn phrases as "fix'd point," "first design," and "vast machine" without the least fear of originality. He could also use the perfection of the Newtonian world machine as a club to beat his more superstitious brethren who would call on nature and nature's god to "descend from that great plan to work unusual things for man." That is, the perfect working of nature's laws could not allow for miracles. Finally, in "Anecdote of the Jar," Wallace Stevens suggests a kind of incipient relativism as his model. The first stanza indicates this:

> I placed a jar in Tennessee,
> And round it was, upon a hill.
> It made the slovenly wilderness
> Surround that hill.

Without the jar, the landscape is a "slovenly wilderness." The jar is the object to which the rest of the landscape relates, and thus the object which establishes order. This may not be exactly Einsteinian, but it does suggest a model of the universe untenable by the previous three poets. From this examination, it also comes clear that man has been dislodged from his central position, and though he remains a principal concern of poets, his stature is diminished with the altering models. In this course, where the 19th century scheme of evolution is central, the Darwinian world picture makes man merely an animal among animals, and this scientific view has a profound effect upon the literature.

From the different perspectives of biology and literature, then, this course attempts to expose certain aspects of the human condition. By paying special attention to the 19th century, it centers this dual examination on a period when discoveries in biology revolutionized not only the discipline itself, but influenced almost every area of human concern, not the least of which was literature. Darwin's discoveries led to the Arnold-Huxley controversy and, of course, to a continuing debate between the sciences and the humanities. We enter that debate on both sides.

Charles Darwin and Natural Selection

In the first extended unit of the course, Darwin's theory of natural selection is treated both as a scientific principle and as an idea that emerged from an intellectual milieu. The theory of evolution itself was not Darwin's contribution to science. There were Greek writers, including Aristotle, who proposed such a theory to account for the origins of living things. Much later, Erasmus Darwin (1731-1802), Charles's grandfather, wrote a poem, *Zoonomia,* that was based on a theory of evolution. Prior to Darwin's *Origin,* the French naturalist, Lamarck (1744-1829), proposed an evolutionary scheme based on use and disuse and the inheritance of acquired characteristics. Darwin's special contribution to evolution, one also made independently by Alfred Russell Wallace (1823-1913), was the mechanism of natural selection. Since animal populations produce more offspring than can survive, argued Darwin, the environment must select whichever forms are more desirable based on a combination of features, and particularly their possibilities to breed for survival. Strikingly, both Darwin and Wallace came to the theory by reading a book by Thomas Malthus, *The Principle of Population.* That is, the key to understanding the mechanism came, not from the scientific evidence before them, but from reading the work of an economist.

In 1831, Darwin boarded the *HMS Beagle.* Serving as naturalist on the five-year voyage, he was able to visit and study tropical forests, coral reefs, volcanic islands, pampas and mountains. He collected a wide diversity of plants and animals and made copious notes on their native settings, and these provided him with the research material he was to study the rest of his life. When he began his voyage, Darwin held the same view of species as the great Swedish taxonomist, Linnaeus, who believed species were fixed and unchanging. Darwin had thus set out merely to collect species and name them, and not to account for their origins.

During the voyage, Darwin's thinking began to change, and the most important single influence on that change was Charles Lyell's recently published book, *The Principles of Geology.* Darwin was impressed by several of Lyell's arguments. Among these were that the earth was much older than was generally believed; that man was a recent species; that extinction of species was a common and not unusual pattern; that climate had changed because of glaciation; and finally, that the geological forces in current action were sufficient to account for the changes in the earth's surface. This view was assigned the name, uniformitarinism, by William Whewell and was contrasted with the term, catastrophism, used to explain the views of Cuvier (1769-1832).

Though he generally rejected catastrophism, Darwin had to account for Cuvier's work with fossils. Cuvier had studied the fossil deposits around Paris and Montmatre. He had noted that often there would be alternating strata of fresh-water shells overlain by marine species. He inferred from this that there must have been several incursions of ocean waters over fresh-water areas. He had also studied the giant fossil remains of rhinoceros, elephants, and tapirs and was struck by the death of these great animals. He accounted for these destructions by suggesting that there must have been enormous geological upheavals in earlier geological periods (catastrophes). Although fossils were well-known, there was no pattern for fitting them into a general understanding. Cuvier accounted for the production of new species by successive creations. There was no suggestion that the fossil forms and the extant forms were linked by inheritance until Darwin emphasized it. In reading The Voyage of the Beagle with our students, we pay close attention to Darwin's observations on fossils and the way he derived evolutionary conclusions from them.

Darwin opened his first notebooks on the species question in 1837. Two specific events influenced Darwin enormously. The influence of Malthus we have mentioned. The other was the receipt of an essay from Alfred Russell Wallace, expressing briefly the same idea that Darwin had written in abstract form. Darwin's abstract and Wallace's essay were published simultaneously in the Journal of the Proceedings of the Linnean Society. The Origin of Species appeared in 1859 and in Darwin's mind, it was only a sketch of his argument. The first printing sold out quickly and made an immediate impact. One source that captures some of the anger produced is a letter by Adam Sedgwick to Darwin. Sedgwick described the views in the Origin as grievous, mischievous, and causing great harm. The debate was on and it was carried on primarily by Thomas Huxley, who became the public defender of Darwin.

Darwin was aware that his Origin would meet objections both scientific and religious. Relative to the former he knew that he had no means for accounting for the origins of variations and that natural selection required this variability to work. Further, he was troubled by his understanding of genetics crosses. For example, when a tall form is crossed with a short form, the result is an intermediate form--one with less variation, not more. Lacking genetic understanding Darwin suggested pangenesis for which he had no evidence. In later editions of the Origin, he turned more and more to Lamarckian use and disuse and to sexual selection.

Gregor Mendel (1822-1884) had what would become, once understood and incorporated into biology, the genetic answer that Darwin needed. His paper was published in 1869. Mendel knew, to explain the results of crosses, that the features studied had to be clearly demarked and that it was necessary to know the genetics of the original parents. If intermediates are crossed with each other the result is to produce in some proportion the parents (say tall and short) and that it is by crossing these forms that variations can be propagated. Mendel also knew that inheritance took place through the egg and sperm. Mendel's paper was forwarded to the Royal and Linnean Societies in London, but Darwin who read German torturously apparently missed it. It took three independent workers in the 1900s to express the full significance of Mendel's work. Mendel's paper is often cited as a masterpiece of logic and quantitative presentation, and as we study it with our students, we try to show, in scientific terms, why such praise is justified.

Darwin and Melville: The Galapagos Islands

This section of the course argues that, while Darwin and Melville visited the same islands within some ten years of each other, they made sense of their experiences in different ways. Melville apparently knew Darwin's *Voyage of the Beagle.* And they share at least one observation in common: both describe the chief sounds of life on these islands as a hiss. The different kind of understanding between the two that is revealed in the comparison is, not so much an antagonism of thought, but a difference in imaginative orientation.

Darwin visited the islands during his voyage aboard the *Beagle* and was struck by the peculiarity of so many of its inhabitants. He noted that the Galapagos were volcanic in origin and thus had never been attached to the South American mainland. Its inhabitants were special, then, because they had features in common with South American species, and yet were quite distinct from them. Modern biology often focuses on the birds of the Galapagos, known as Darwin's finches, as providing clear cut evidence for natural selection. We point out to students how these birds, from the various beak structures, have different feeding habits and thus how they adapted to the environment. What precise role the Galapagos played in Darwin's thinking is difficult to determine, but he did not emphasize them in the first edition of the *Origin.*

Herman Melville (1819-91) visited the Galapagos Islands in 1841 while serving as a seaman on the whaler, *Acushnet.* His experiences there are the basis for his book, *The Encantadas or Enchanted Islands,* which takes its title from the Spanish name for the islands. The book consists of ten independent sketches that are related by geographic location and subjective response. The first five sketches describe geography and animal life and the last five deal with isolated people (*isolados*) who endure immense hardship and loneliness. For Melville the islands were an inferno and the book is often called Melville's *Inferno.*

With the reading of Melville, we have the opportunity to discuss the formal properties of fiction and how they shape the meaning of a work. *The Eucantadas* are particularly useful for a discussion of descriptive imagery and how its cumulative effect works to create a mood and atmosphere which is, not merely decorative, but the substance of the fictive experience. To shape his response to the islands as an inferno, for example, Melville describes them as cursed, glued to a cadaverous death, a hell, a penal conflagration, clinkers, and sprinkled with the apples of Sodom. Or to suggest the ambiguous nature of experience, he tells us the geographic placement of the islands is uncertain, since they are said to move around. The comparison of Darwin and Melville, then, reveals a profound difference of imaginative orientation.

The Science-Humanities Debate

One result of Darwin's work, and more generally of the scientific and technological expansion during the nineteenth century, was an intensification of the debate between the sciences and the humanities. Many began to propose that science was a discipline quite separate from the humanities. Further, the technological advances stemming from the Industrial Revolution led to the idea that science could be useful to a modern technology and economy. This schism is reflected beautifully and eloquently in the debate between Thomas Henry Huxley (1825-1895) and Mathew Arnold (1822-1888). Along with the discussion of the substantive issues, a reading of Huxley and Arnold gives us the opportunity to continue our study of the structure and purpose of the essay, a study begun with the reading of Darwin and Mendel.

The first blow in the debate was struck by Huxley. The occasion was the founding of the University of Birmingham made possible by the contributions of the successful industrialist Hosiah Mason. Huxley was invited to give the inaugural address. Mason had requested that the University not be involved in "mere literary education..." Huxley argued that the classics are of no direct value and that an exclusively scientific education is at least as valuable as an exclusively literary one.

The response to this was given by Mathew Arnold in his essay, "Science and Culture." Arnold argued that a criticism of life is the essence of culture and that the goal of any education is to know the best that has been said and thought. Primarily, Arnold asked how can man live a happy, fulfilled life in an industrial age? Arnold and Huxley not only disagree about what is to be taught at the university, then, but their choices are based on a different conception of the educational endeavor--and thus on a different conception of human life.

A more recent version of this argument was the debate between C.P. Snow and F.R. Leavis. C.P. Snow gave the Rede Lecture in 1959 and made an argument that became immediately famous. Snow argued that there were two separate kinds of minds, the scientific and the literary, and he said that the two existed quite separately. He made a plea that the modern university produce as many "alpha" plus scientists as possible and place them in developing nations to improve their standard of living. The response by Leavis, in his lecture, "The Significance of C.P. Snow," was withering. Leavis contended that there is either an intelligent or unintelligent use of the mind or and that views could not be divided as Snow suggested. Leavis proposed the same question as Arnold: What enables people to live full and happy lives?

Impact of Darwin and Biology

The impact of Darwin on Victorian society and on the Continent was immediate. In England, the debate between Bishop Wilberforce and T.H. Huxley epitomized the conflict and would be an excellent point at which to examine the issues involved. We have chosen, however, to present the impact of Darwin in a setting closer to home, in the Scopes Trial or, as it has become known, The Tennessee Monkey Trial. These events captured world attention when they were played out in 1925, but given the current conflict between evolutionists and creationsists, the Scopes Trial has again become of more than academic interest. In a kind of historic model on which students can achieve some objective distance, the Scopes Trial allows for an examination of issues and evidence that the current emotional atmosphere tends to be obscure. Coming to the Trial later in the course, students are equipped, in part, with the kind of scientific information and humane insights to give the issues a more expansive hearing. And finally, the Scopes Trial allows our students to gain some sense of the profound and disturbing effects that biology has had on the common beliefs of men.

A young physicist, Thomas Scopes, taught a biology class and presented the idea of evolution. This violated to Tennessee statutes that forbade the teaching of any doctrine contrary to the Bible. Scopes was defended by Clarence Darrow sent by the ACLU and the State's case was prosecuted by Williams Jennings Bryan, thrice democratic candidate for president. Bryan was an important political figure: a populist, a devout religious man, and sympathetic to rural America. Bryan, like his arguments, were crushed by the penetrating intellect and weight of evidence brought by Darrow. Darrow was a superb trial lawyer and had defended some unpopular clients because he believed in their causes. This was all great staging for H.L. Menecken who wrote daily dispatches to the Baltimore Sun.

We also treat another biological conflict that relates, not to Darwin, but to Mendelian genetics. The Lysenko Affair in the Soviet Union pitted the Lamarckian concept that organisms can acquire traits from their environment against the Mendelian concept that traits were inherited. As part of an attempt to improve agricultural output, T.D. Lysenko instituted his version of Lamarckianism, supported by the full weight of the state. Stalin supported Lysenko throughout the 1930's and 1940's because Lamarckian biology, in his mind, tallied more perfectly with Marxian philosophy. The Lysenko Affair is instructive, because it demonstrates, on certain obvious levels, political decisions can, and ought to be, called into question. Regardless of what we might consider the scientific method, utilitarian patterns of validation do dismiss certain claims as being scientific. Since our students have studied Mendel's paper earlier in the course, the scientific argument is fairly easy to make at this point. But as in the Scopes Trial, the issues involved, perhaps, cannot be settled by a simple appeal to scientific argument.

Literature and Science

We end the course by reading some pieces of literature that involve biological understanding in some fundamental way. These texts are varied from year to year, but they often include works by Joseph Conrad, Herman Melville, Jack London, and Alexander Solzhenitsyn. Others can easily be selected. Some of these texts are examples of literary naturalism where biological themes are consciously employed by the writer. The work of Jack London would fall into this category. Other of the texts are less obvious examples of biological themes. The first long example that follows, Melville's Benito Cereno, falls into this group. Three other texts are treated more briefly to give some idea of how the biological perspective is used in the interpretation of fiction.

Herman Melville's Benito Cereno provides an opportunity to study race and racism. We first study race as a biological structure and cite the genetic concepts of race and some of the biological and biochemical features that characterize it. Then we read Benito Cereno which treats slavery and uses language that reveals a concept of slaves as inferior human beings. We show that the sociological and literary uses of the term "race" are quite different from that of science.

For the biological categorization of race we refer to Race and Races by Richard A. Goldsby. We introduce some of the differences found in races of people. Blood types, fingerprint patterns, urine in some cases and ear wax. These are expressions of forms of genes known as allemorphs in human populations and are examples of constitutional differences between racial groups. Biologists define races as breeding populations--people who mate and who thus have features in common with each other. Some of these breeding populations are more apt to have certain diseases than others. It is not, however, the existence of different features that has led to expressions of human cruelty, but the way society has fastened on the meaning or the value of certain characters.

In Benito Cereno Melville addresses deep cultural prejudices that distort the consciousness of even the good man. Since the story is told by one of the principal actors, Captain Amasa Delano, special care must be taken to introduce the student to the technical use of the term, point-of-view, in fiction. That is, the consciousness of the storyteller is fundamental to the attitude projected by the narrative. In the story, for example, Delano describes the Negro as having a peculiar love for uniting industry with pasttime, as being good natured and good humored, as making the most pleasing body servant in the world. They are cheerful, set by God to some pleasant tune (that is, they've got rhythm). Later Delano thinks, "But if the whites had dark secrets concerning Don Benito [the white Spanish captain], could then Don Benito be any way in complicity with the blacks? But they were too stupid. Besides who ever heard of a white so far renegade as to apostatize from his very species almost, by leaguing against it with Negroes?" All of these attitudes toward the black man were apparently commonplace as early as the middle of the 19th century (and no doubt earlier), but to get at them in Melville's novel, the student must address the technical question of point-of-view with some care. At the end of the story, Delano discovers that, what he thought was a ship in distress (and what the blacks wanted him to think), was really a ship taken over in a slave rebellion. Because of his attitude toward blacks, then, Delano could not make sense of the clues that would have led him to the true state of affairs. The view of race in the story is clearly not one based on allemorphs, but on cultural distortions. By doing the biology carefully and then by examining the question of point-of-view in the novel, we hope to give the student a richer appreciation of the vexed topic of racism.

The three examples below illustrate more simply and directly the use of biological themes in the reading of fiction. In the novel, A Day in the Life of Ivan Denisovich, a biological pattern operates in a fundamental way. An organism to survive must be able to eat and must avoid being eaten. Ivan is doing exactly both of these things. The book ends by describing Ivan's day, which was a good one. It was good because he got fed with soup that had fish in it and because he was able to bring into the camp a bit of a blade that he could use as a tool and turn out products that he could sell. A Siberian prison gulag is a bleak setting and the best one can hope for is to live one more day. In Steinbeck's Of Mice and Men, we see a different pattern. It is the story of two men travelling together, one very strong but of limited mental ability and the other small but shrewd at managing their survival. Lenny represents pure animal brawn; yet, it isn't brawn that enables the two to make it. It is the managing abilities of the friend. Another story with a straightforward biological pattern is Jack London's "A Piece of Steak." An aging prizefighter must take on a foe who has him outskilled but who lacks finesse. The aged prizefighter needs money for his family. His greater experience almost enables him to pull off the victory, but since he has not eaten in several days, the older fighter just does not have the stamina.

Reading List

Arnold, M.	"Literature and Science"
Asimov, I.	*A Short History of Biology* (selections)
Conrad, J.	*Heart of Darkness*
Darwin,C.	*Voyage of the Beagle* (selections) *On the Origin of Species* (selections)
Herbert,G.	"Man"
Huxley,T.H.	"Science and Culture"
Kearney,H.	*Science and Change, 1500-1700* (selections)
Leavis,F.R.	"Two Cultures? The Significance of C.P. Snow"
London,J.	"A Piece of Steak"
Lyell,C.	*Principles of Geology* (selections)
Melville,H.	*The Encantadas* *Benito Cereno*
Mendel,G.	"Experiments in Plant Hybridization"
Milton,J.	*Paradise Lost* (from Book VIII)
Snow,C.P.	"The Two Cultures"
Solzhenitsyn,	*A Day in the Life of Ivan Denisovich*
Steinbeck,J.	*Of Mice and Men*
Stevens,W.	"A Jar in Tennessee"

A NEW TWIST ON THE CONTINUING HUMANITIES EDUCATION OF TEACHERS: THE COPPIN-HOPKINS PROJECT

William J. Carroll
John J. Furlong

I. Introduction

As the pool of traditional college-age students continues to decline, other student populations must be tapped if a college is to be successful in the last fifth of the twentieth century. One solution is greater collaboration among institutions of higher education and secondary school systems, premised on the need for continuing education of high school teachers. An effort in this direction is being made by the Coppin-Hopkins Humanities Program in the Baltimore City Schools (hereafter, C-HHP), a partnership involving the Johns Hopkins University, Coppin State College, and the Baltimore City School System, which is currently training all literature teachers in the Baltimore secondary schools to teach classic texts to their students.[1] This project comprises three three year phases,[2] at the end of which all city school teachers will have learned to teach Plato's *Republic*, Dante's *Divine Comedy*, and de Tocqueville's *Democracy in America*.[3] This paper will provide an overview of the first phase of this project.

A. A Brief History of C-HHP

The idea of C-HHP arose from a much smaller collaborative venture. In October, 1984, Professors Diskin Clay and Lowell Edmunds of the Classics department at the Johns Hopkins University participated in a series of lectures on the Concept of the Emergence of the Individual in Western Civilization, a project funded by the Maryland Humanities Council and held on the campus of Coppin State College. The occasion sparked a discussion among these professors and the grant coordinators, Professors William Carroll and Stephen Mann, which eventually developed into the current partnership.

The guiding conviction, present even in the original discussions, was that certain primary texts in Western civilization are prisms through which one can read the history, literature, and philosophy of an era. Such key texts, in other

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words, are "pressure points" in history; one might comprehend through them the intellectual life of an epoch and compare one age with another.

Dr. Marie Francis, Director of the Office of English in the city schools was contacted and added further reinforcement to the conviction by urging that high school teachers would welcome the idea of teaching with such primary texts and that high school students were capable of such work. In December of 1985 C-HHP received a Planning Grant from the National Endowment for the Humanities which was used to make the liaison among the three institutions more efficient and to encourage the advice and support of as many of the city school teachers as possible, verifying Dr. Francis' estimate. A questionnaire was developed and sent to all teachers of literature at the junior and senior level (results available upon request), and an Orientation Workshop was held at which 40 of these same teachers examined the Apology in the same way the whole group would examine the Republic (description and evaluation comments available upon request).

Currently, Professors Edmunds and Furlong are developing a computer network linking the three institutions. C-HHP has its own account on the AT&T 3B2 in the Department of Classics at Hopkins and remote log in's and file transfers are in use. Electronic mail is envisaged as a regular means of communication among the three institutions.

B. The Current Project: The Republic (1987-1989)

There are 150 secondary school teachers of literature in the Baltimore city school system. Over a period of three years, all of these will be trained in the reading of the Republic, beginning with teachers of junior students and ending with teachers of senior students. The training will involve an intensive five-week summer course of study on the text and its historical, philosophical, and literary context. Also there will be activities during the following academic year designed to deepen the teachers' knowledge and to incorporate the text into the curriculum. At the end of the three year process, a Curriculum Guide to the teaching of the Republic will at that time become a permanent feature of the curriculum.

The partnership is founded on the idea of mutual exploration, both of the text in question and of the way it is to be implemented in the curriculum. Although the professors involved may have more knowledge of the text and its historico-philosophical context, and the teachers may have more experience conveying complex ideas to secondary school students, nonetheless, the tone of the program is mutual responsibility and mutual respect, professors and teachers helping one another to produce a permanent, stimulating feature of the curriculum.

II. Rationale for Project

A. Current Educational Research in Secondary and Higher Education

The last five years have seen at least 12 major reports on the status of secondary and higher education in this country.[4] In the past year alone, three studies have recorded an alarming decline in the quality of undergraduate education. Two of these attribute the erosion, in large measure, to "arid teaching"[5] and the "narrow scholarly interests" of college and university faculty, resulting in Byzantine curriculum patterns, especially at the freshman and sophomore levels. These reports come years after similar alarms were sounded at the secondary level. There, too, faculty are cited, less for specialization than for lack of competence in their fields. Yet, though both institutions are being assailed, eight of the twelve reports, including a recent study by the American Association of Colleges, strongly recommend a closer working relationship between secondary schools and colleges and universities, since it appears to be the very breakdown of "articulation between secondary and higher education" that abetted the decline, indeed, spread it from the one institution to the other.

Recognizing the deleterious effects both of the "top heavy" nature of humanities teaching at the college and university level and of the "bottom heavy" curriculum patterns that have discouraged many high school teachers of the humanities, C-HHP is seeking to improve the teaching of humanities in both sorts of institutions at the same time, employing senior professors in humanities areas from the Johns Hopkins University to teach high school teachers and to work with them to improve the current humanities curriculum in the city schools.

What, then, will be taught by the Hopkins professors, and why? The intellectual focus of the project is the teaching of certain "pressure point" texts, those texts in which one can view an age in microcosm. In teaching Plato's Republic, for instance, the senior high school literature teacher will need to discuss elements of Greek history, raise questions about the meaning of certain Greek terms, and explore implications of Plato's philosophy in his very attempt to teach the literary dimensions of the work. One reason a primary text is adjudged a "classic" is that it is polyvalent, and this is as well a most compelling reason for spending class time on it.

B. The Three Texts Selected

In the long-range plan for the language arts area, three key texts have been selected for study: Plato's Republic, Dante's Divine Comedy, and de Tocqueville's Democracy in America. The latter two titles are subject to change depending on the advice and consent of the teachers and the Advisory Board. The suggested titles were selected on the basis of six criteria:

1. literary merit,
2. philosophical interest,
3. historical significance,
4. representativeness,
5. potential for appropriate contrast and comparison with the other works,
6. accessibility to high school juniors and seniors.

There is little reason to doubt the literary merit of any of the works selected. As to philosophical sophistication, certainly the Republic is beyond question, while the other two, containing less explicit argumentation, cannot be read in any depth without, at the very least, bringing in philosophical concepts and arguments of Aristotle (for Dante) and John Locke (for de Tocqueville). All three, as well, represent powerful political tracts of their respective ages and contain enough historical references to important persons and events to require some knowledge of the particular epoch. Moreover, as works written by the best minds of their times, they offer a taste of what it was to be human in a particular century, to contemplate the truth of a particular set of beliefs, and to be quickened by a common source of images and metaphors. These very characteristics, in fact, are what make these three works "pressure points", of Western thought. They may fruitfully be compared and contrasted on common themes such as authority, the uses of power, the relation of person to state and higher allegiances, responsibility, freedom, and human nature, and each may be analyzed separately and comparatively for the origins of literary traditions, historico-political quandaries, and philosophical complexities. In regard to the final criterion,accessibility, one might at first imagine that if these texts are all they have been represented to be, they might be entirely too great a challenge for high school students, to whom this project is ultimately directed. On the contrary, all three works were purposely written for nonspecialists, indeed, for the generally educated public. Hence, all authors pay close attention to clarity of argumentation, economy of detailed knowledge, and relevance of concrete images. In short, their respective geniuses lie in conveying whole worlds of thought with simplicity. There could be no better introduction to the intellectual history of the West than through classic texts, and these in particular, it is felt, offer the student an exposure to a broad cut of that historical fabric. That this confidence is shared by high school teachers is evidenced by their answers to the questionnaire and by their evaluations of the Orientation Workshop.

C. Benefits Expected

In general C-HHP holds remarkable promise for all parties involved. The Johns Hopkins University has a well-deserved international reputation, and the Classics department is a highly regarded community of productive scholars. Coppin State College was for years the mother institution of most city school teachers, and even today over 50% of city school teachers have received their undergraduate degrees from Coppin. Of students matriculating at Coppin, over 90% have graduated from the city school system. Moreover, long-standing articulatory agreements between Coppin and the city schools assure the administrative efficiency of the program. For their part the city schools over the past 5 years have begun serious curriculum improvements, especially in the Office of English. Combining the strengths of all three institutions--the excellent research faculty of Johns Hopkins, the well-honed administrative and academic channels at Coppin, and the commitment to excellence through curriculum improvement and teacher training on the part of the city schools--benefits all at the same time.

III. Activities of the Project

The project involves several activities that last approximately one year. These activities are briefly summarized below.

A. The Summer Session.

Each summer approximately 50 teachers will join with the major professors in working parts of the classic text into the high school curriculum. These individuals will be selected by year taught, i.e. teachers of juniors begin in 1987, and teachers of seniors follow in the subsequent years. This five week summer session, worth three graduate credits, will contain the following parts

1. Lecture/Discussions. The lecture and subsequent discussions will focus on the text--how to read a primary text and how to draw from it historical, philosophical and literary implications. Participants--professors, teachers and graduate students--will meet twice a week and sessions will be divided into three phases:

a. fifty minutes of lecture by the major professor;
b. fifty minutes of general discussion on the topic of the day led by the major professor or other qualified instructors, all of whom will attend all sessions;
c. a fifty minute group session discussing how this material, or parts of it, might be employed in teaching high school students. Four groups will be established at the beginning of the summer session. Each group will comprise one professor, one graduate student and twelve to thirteen teachers. These groups will constitute the working units of the project, for each group will maintain the same membership throughout the project.

2. Seminars in Concurrent Literature. Every Tuesday for two hours participants will convene in their respective groups. During the first four weeks the groups will rotate among four group leaders who are responsible for initiating discussion of four texts. For the Republic phase of the project, the following

seminars are scheduled.

a. Seminar on Antigone,
b. Seminar on H.D.F. Kitto's The Greeks,
c. Seminar on the Apology and other early dialogues,
d. Seminar on selections from K. Popper's The Open Society and Its Enemies,

During the fifth week's seminar, the professors will return to their respective groups and discuss a work of the teachers' choosing, led by a volunteer teacher. Selected texts will be distributed to all participates prior to the summer sessions.

3. Individual Conferences and Project Paper. All participants will write a project paper, analyzing one of the issues raised, discussing it in the context of the focal text as a whole and showing how it might be treated in a high school classroom. Every Thursday, the professors will hold conference hours from 1:00 to 6:00,p.m. in which members of their respective groups will discuss their project papers and the sessions in general. Every teacher must meet one of the professors for at least 1/2 hour per week.

4. Weekly Dinner and Activity. Every Thursday evening all participants will have dinner together before the weekly activity. Each week will feature an activity related to the particular epoch in which the primary text was developed. For example, in the first phase of the project, Greek history, literature, philosophy and religion will be highlighted.

B. Monthly Visitations

The project directors and major professor will arrange their schedules so that between September and June of a given year they will have visited all teachers of their respective group and their classes at least once. During that visit, the professor should meet the principle of the school, other teachers, and students. He may arrange with the teacher to address her/his classes on a certain topic, but his major responsibility will be to confer with the teacher on problems of teaching those texts discussed in the summer session or on ancillary applications.

C. Bi-monthly Seminars on Ancillary Applications

The purpose of the bi-monthly seminars is to allow the teachers to meet and discuss their successes and difficulties in incorporating the material into the classroom as well as to enlarge the knowledge of the participants about the world of the key texts. The general format for the seminars will be similar to the summer course. The group will meet once a month in October, December, February, April, and June,for 150 minutes from 4:00 to 6:30 p.m. Each meeting will normally involve:

1 thirty minutes reacquaintance (coffee, dessert);
2 fifty minutes of new material;
3. thirty minutes discussion incorporating the new material into the already acquired common knowledge;
4. seventy minutes of discussion on successes/difficulties found in incorporating the text into the curriculum.

D. Development and Ratification of Curriculum Guide

During the summer of 1989, a group of teachers (volunteers), the major professor,and the project directors will develop a Curriculum Guide. This document will then be modified and eventually ratified by all participants in the project during the regular Teacher Workshops in August, 1989.

IV. Conclusion

The long-range goals of the C-HHP alliance are the continuing education of secondary school teachers in the use of primary texts in the classroom and curriculum improvement in the city schools. Plans include training in the foreign languages and social sciences areas and extending the partnership to other interested colleges and universities and to parochial high schools in the city. This paper has provided an overview of the history, rationale and implementation of the current project, the specific aim of which is to make the reading of three primary texts and the literary, historical, and philosophical knowledge such a reading entails a permanent part of the city school literature curriculum.

This paper has been largely descriptive rather than justificatory because it was felt that, at this stage of continuing education in the humanities, the emphasis should be on the dissemination of promising ideas rather than on their defense. Moreover, as the project unfolds, there will necessarily be adjustments. Crucial to the continued success of the project will, of course be the good will and cooperation of the three institutions involved, the active enthusiasm of the secondary school teachers, and the translation of the intellectual content/pedagogical theory learned in the summer sessions to the secondary school classroom.

FOOTNOTES

[1] This project has been made possible through a generous grant from the National Endowment for the Humanities.

[2] Since there are approximately 150 English literature teachers in the Baltimore City secondary school system, the program has been developed to accommodate approximately 50 per year. Accordingly, it will take three years to complete the training of these teachers in each text.

[3] For information concerning the selection of these texts see below Sec. IIB.

[4] See Education Under Study, Second Edition, (Northeast Regional Exchange, Inc. 1983), for an analysis of nine of the studies.

[5] The reports referred to are William J. Bennett's "To Reclaim a Legacy" and the Association of American Colleges' "Integrity in the College Curriculum: A Report to the Academic Community."

INTEGRATING SCIENCE AND THE HUMANITIES FOR CAREER-ORIENTED STUDENTS

Stephen Gottlieb and Robert Martinez

Team Teaching Career Oriented Students

Quinnipiac College is a small private institution comprising three schools. The School of Liberal Arts includes the humanities together with a few applied areas of study such as Gerontology, Legal Studies, and Mass Communications. The School of Allied Health and Natural Sciences is made up of Biology, Chemistry and Physics, together with such applied fields as Physical Therapy, Occupational Therapy, Nursing and Respiratory Therapy. The School of Business consists of Economics and the various business disciplines. Hence, what would be a College of Arts and Sciences at many institutions is distributed among three schools, career-orientation pervades the very fabric of the college, and, not surprisingly, the students themselves place heavy emphasis on professional training.

To help counteract the disproportionate emphasis on applied courses and the corresponding de-emphasis of liberal education, we have developed and offered two courses that cross the disciplinary lines between English literature and the natural sciences. Our first experience with such a course convinced us of the value of team teaching as a tool for motivating students to seek a liberal education as well as professional training. As manifest in our courses, team teaching includes three essential characteristics. First, both of us are present for and fully participate in every class section: team teaching most emphatically does not mean a simple division of labor. Our presence and participation in all class sections serves to legitimize each other's academic areas in the eyes of the students. Second, we both lecture in all areas of the course, crossing traditional disciplinary lines, and creating in our students an expectation that breadth is both possible and desirable in their own performances and interests. Third, we engage in a dialogue in the classroom, both with each other and with the students, and encourage the exploration of disagreement. In short, we serve as role models for students who, by and large, are exposed only to more narrow role models in their career oriented and single-discipline arts and sciences courses.

Our second team-taught course, Three Moments in Science and Literature, was developed with the support of a generous grant from Project Quill of the Association of American Colleges.

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The Course's Impact on Liberal Education at Quinnipiac

Three Moments in Science and Literature has been accepted into the General Education Curriculum ("Core") of Quinnipiac College, a process that required the approval of the departments concerned (Biology, English), of the Curriculum Committees in the two schools (Allied Health and Natural Sciences, and Liberal Arts) and of the Curriculum Committee of the College. It is listed both as a Biology course and as an English course, and students may elect the category in which they will receive credit. This course is the only team-taught, interdisciplinary course in the general education program, and its inclusion will, we hope, encourage the formation of other such courses.

Experimental courses are potentially troubling entities within a college. We believe, however, that the presence within the course of undeniably central readings and themes, together with our use of primary documents, bridges the gap between experimental and traditional courses. Many colleagues judged the course to be basic, its materials essential to higher education.

Course Description: Three Moments In Science And Literature

Three Moments in Science and Literature studies significant literary and scientific texts written during three historical eras, and stresses the interrelations of science and literature. For each of three periods--the seventeenth century after 1610 (the "new astronomy and Cartesian thought), the mid nineteenth century (evolution), and the modern era after World War One (genetics, social inheritance)--concepts of nature and the human species are compared and contrasted with those that can be gleaned from a critical reading of biblical and ancient Greek material.

The course has six major objectives. First, it seeks to further the problem solving skills of non-science undergraduates in problems which cannot be solved, or formulated, except through the integrative (interdisciplinary) approach of studying science with the liberal arts (In this case, students are exposed to history, philosophy, imaginative literature, biology, and seventeenth-century astronomy and optics). Second, it strives to increase the non-science student's confidence and eagerness in studying scientific and technological concepts and processes with respect to questions of personal and social values and, especially, changing views of the human species. Third, the course enables students to read original scientific writing for the scientific information and for an appreciation of the historical development, style, and structure of scientific writing. Fourth, it encourages students to express--in the form of reference papers, journal entries, and class problem solving sessions--the relationships between science and the humanities mentioned above. Fifth, it builds the student's ability to read important literary texts closely. Last, and perhaps most important in our view, it provides career-oriented students with interdisciplinary academic role models.

Classroom methods include an appropriate use of lectures, discussion, small group problem solving and textual analysis, guest lectures, and several videotapes.

There are no graded examinations in the course. We require two well-written, thoughtful, well-investigated papers, each 5 to 7 pages long, plus peer critiques and author's responses (as indicated below). We also require journals. For each paper, a list of "problem" topics is presented to the class. Other topics are acceptable, however, provided they are approved in advance by one of the instructors. One paper must emphasize imaginative literature: the other must emphasize science or philosophical issues in relation to science. Both papers may integrate concerns of science and literature in an interdisciplinary fashion: that is, by posing questions that may be investigated by using methods of various disciplines, including the social sciences. Required books and other reading assignments can be found in Appendices 1 and 2.

Required Papers

Students are required to write two papers during the semester and are given a list of over 50 suggested topics, such as those given below.

1) Study the differences between the cosmological views of Genesis (Old Testament) and that of one or more of the Greek philosophers. What are the differences? What is the role and place of the human species (or individual) within these contrasting world views?

2) The inheritance of sin, or of personality--is inheritance due to social or religious or genetic causes, or to some combination of these? Study Ibsen (1 or 2 plays, for instance, including *Ghosts*) and incorporate some essays on genetic inheritance that are relevant to your topic. This paper should include close analysis of one of Ibsen's texts.

3) A study of Fowles' *The French Lieutenant's Woman* as a novel written in the form of Darwinian evolution. Study the themes and the novel in relation to its form (for example, plot, characterization, imagery, point of view, etc.) to show how thoroughly Fowles has created a novel filled with the ideas and the philosophical implications of Darwin's work.

Because writing plays such a prominent role in the course, some classroom workshops and home assignments are devoted to problem solving, writing, revision, and peer evaluation of the writing. All written work is graded for creative thought and organization, and for problem solving and writing skills.

Collaborative Learning, Peer Critiques, and Journals

In our course, collaborative learning takes two forms: collaborative problem solving and writing peer critiques. These forms are backed up by a third, the log and writer's journal. Collaborative learning in all its forms involves small group work, as explained in the narrative sections of the course syllabus. The instructor, instead of being the repository of learning, facilitates a structured dialogue among groups of students. The dialogue involves paired students (for the peer critiques) or five to six students arranged in a circle (for problem solving).

The instructor has carefully prepared a structure which guides the students through certain stages of learning, moving from simple to more complex information and thinking.

The theory behind collaborative learning has been explained well by many who use these techniques (see esp. Kenneth Bruffee, ref. cit.). Here, we will be brief. Much learning, and especially the process of writing, one form of learning, is social rather than individual. Once the social learning of knowledge is acknowledged, it is fitting that the instructor arrange a social network for learning and writing. That knowledge itself is a social phenomenon, rather than an individual acquisition, has been proposed by recent philosophers and historians of science (Richard Rorty, in Philosophy_and_the Mirror_of_Nature, and Thomas Kuhn, in The_Structure_of_Scientific Revolutions).

There are several principles behind this social conception of knowledge. First, knowledge is formed by people, is active and transformational rather than inert and lying around, "waiting to be discovered" like a lump. If we may adapt a statement from Simone de Beauvoir, knowledge is ambiguous in that "its meaning is never fixed;...it must be constantly won" (The_Ethics_of Ambiguity 1948). Second, knowledge, including scientific knowledge, is formed through social interaction rather than in personal isolation. That such is the case is, in fact, clearer in science than in, say, the writing of poetry--although poets depend on oral and written tradition, on having "dialogues" with the dead. The social nature of poetry making was most clear in the European renaissance, when one legitimate mode for writing poetry was translation. In fact, most Renaissance sonneteers, Thomas Wyatt and Philip Sidney included, translated freely and without acknowledgement of their sources. Third, knowledge is a function of social belief. As such, knowledge is, in a word, metaphoric (see the authors' previous "Metaphor in Biology and Literature"). The structure of knowledge can be arranged in many ways, even within a given historical era.

Collaborative learning methods fall into accord with the concept of knowledge presented above. It supports the social nature of learning as a process and as a conception of knowledge itself. The model of learning presented by collaborative learning follows those models of knowledge as dynamic, ambiguous, changing, socially challenging, and even revolutionary. Structures for collaborative learning exist in and out of the classroom. Modified forms of collaborative learning exist in medicine's "grand rounds" as well as in Paolo Freire's recommendations for literacy training among Brazilian peasants (The_Pedagogy_of_the_Oppressed). Of late, however, collaborative learning methods have been invented, codified, and disseminated around colleges in the United States.

In our collaborative learning exercises, students are given the following instructions: "Once the group has been formed, please agree on one person to record the views expressed in the group, and the decisions that the group makes collaboratively. The recorder will speak for the group. One person (not the recorder) read the following instructions aloud to the rest of the group. Review the recorder's notes to make sure they express accurately what the group has done and decided. If a member of the group dissents from any decision, the recorder can tell us that, too."

As examples of collaborative learning used by the authors, let us consider the problem-solving strategies. Two examples follow:

Ex. 1 Collaborative Learning Exercise on Ibsen's Ghosts.

> 1) Pick a character in Ghosts, by Ibsen. List as many reasons as you can think of for the behavior of that character. 2) Which one of the reasons is the most important determinant of that character's behavior, and why? Cite evidence in the text. 3) Do you believe that these reasons demonstrate a causal pattern that is biological or social? Can this pattern be both biological and social? Provide reasoning for your responses.

Ex. 2 Collaborative Learning Exercise on Darwin's Origin of Species.

> 1) In The Origin of Species, what is Darwin's definition of natural selection? Each group should restate the definition. 2) On page 87 of Origin, Darwin compares evolution to "the great Tree of Life" (see this paragraph). As a group, select a different metaphor for evolution, and explain how your metaphor takes into account one of the principles of evolution of which Darwin was unaware. 3) In Darwin's writings, where or how do you detect Darwin's religious convictions?

Each of the examples above launches the students onto discoveries filled with promise, some answers, and some errors or dead ends. The kinds of knowledge the students will "discover" will involve facts, but collaborative knowledge involves the discovery of principles of knowing, of models of knowing, of opinions, and of hypothetical knowledge. In their groups, students, unwatched by the instructors (who have left the room), will debate, reason, make claims, list, sort, hypothesize, conclude, examine, illustrate, communicate, verbalize. The questions are organized into progressively more difficult issues, and the various groups will reach differing conclusions. Within each group, a recorder will record the consensus and the dissenting opinions of the group, and reasoning will be provided for the conclusions.

On the basis of these recordings, which the instructors have chalked on the blackboard, the instructors encourage a plenary discussion of the results, and, especially revealing, of the differences in the knowledge discovered by each group. Also, on the basis of the instructors' analysis of the results of the group work, future lectures are planned which are far more suited to actual class needs than are lectures planned without such classroom dialogue. Courses taught using such collaborative techniques are dynamic and, often, dramatic.

While space inhibits a full discussion of the peer-critique system, we wish to call attention to the system we use. Our peer critique form can be found in Appendix 3.

Since collaborative learning, itself based on a dynamic model of knowledge, stresses learning as a process, the peer critique system emphasizes the process of writing, a process whose chief feature is revision. Although many forms may be used, and should be tailored to each course, all peer critique forms guide the author and the peer critic through the stages of writing appropriate to the particular course. The process follows several stages over a period of two weeks: a first draft is read by each student within small groups; drafts are exchanged for the critiques, written at home in essay form; the author writes an "author's response" in essay form, revises the first draft, then completes the finished paper. All phases of the work are graded by the instructors (never by the students). We find that student writing improves dramatically under such a peer-critique system.

The collaborative emphasis is counterbalanced by the student journal, a combination journal and log of select course readings. In the journal, the student discusses the process of his or her learning in the course. Only the instructors will read the journal; so the students are assured this partial privacy. The log portions of the journal record the student's critical assessments of course readings of his or her choice. Both phases of the journal ask students for a large variety of critical evaluations. In most journals, the students use humanities readings to make ethical or religious or philosophical sense out of the scientific readings, an effect most gratifying to the instructors of this course.

As mentioned above, most of our students are career oriented. Collaborative learning is particularly useful in making them feel less passive about learning. It creates an expectation of preparation and participation, in part because of the force of peer pressure. It guides poorly prepared students through stages of learning. Students create their own dialogue, often a happy and joyous interchange, and often they will request that we allow them more time to discuss within their groups. We also find that a variety of collaborative solving methods allows for the specific needs of a variety of students, probably due to their varying ranges of experience. Also, better students help the weaker students, and the weaker students, being in frequent dialogue, improve rapidly if they put in the effort. In sum, for instructors looking for an active classroom method backed by a specific way of looking at knowledge, collaborative learning is an efficient and pleasurable method.

Student Evaluation of the Course

We assessed student opinion of the course by means of an anonymous two page survey distributed to the students during the last week of the course, returned to us after we had submitted final grades. We use a form incorporating the questions in Appendix 4. The questions on the survey were designed to elicit student opinion in a number of areas, including changes in student attitude toward science and imaginative literature, perception of the value of interdisciplinary courses, favorite readings, and the best and worst aspects of the course. For most of our students, the course was their first experience with interdisciplinary subject matter, and their first course taught by two instructors from different academic disciplines.

Given the clinical or scientific nature of the major fields of study of most of our students, it is not surprising that they chose to discuss changes in their attitudes toward imaginative literature rather than their attitudes toward science. Their answers reflected their increased awareness of literature, of its levels of meaning, its relationship to scientific views, and the ways in which both interact with other aspects of culture. Changes in the students' attitudes toward science were less marked.

Students reported enjoying many of the course readings. On the survey forms, quite a few students selected *Tess of the D'Urbervilles* as their favorite reading, a result which confirmed our subjective opinion of student responsiveness in class. By and large, students reported an increase in their enjoyment of imaginative literature. Most students believed that the course would influence their future readings. In the minds of our students, the most successful features of the course were the balanced nature of the views presented, required papers in lieu of formal examinations, collaborative learning, groups discussions, having both instructors present, the flexibility of the instructors, and the amount of material learned. No two students listed the same most successful features. The same diversity appeared in the students' opinions of the least successful features of the course. Despite our conscious attempt to keep the amount of required reading at a reasonable level, two students found it to be excessive.

Student opinion of the course as a whole was quite favorable. The students found the presence of two instructors, both of whom were present for almost all class sessions, and who at times held and defended opposing views, to be beneficial.

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Gottlieb, Stephen A. and Robert Martinez. "The Structure of Metaphor in Biology and Literature." forthcoming in *Proceedings of the L.I.U. Conference on Literature, Science, and Technology*. 1983.

Kuhn, Thomas. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press. 2nd ed., 1970.

Rorty, Richard. *Philosophy and the Mirror of Nature.* Baltimore: Johns Hopkins UP, 1979.

Appendix 1. Required Books

Appleman, Philip (ed.). 2nd ed. 1979. *Darwin: A Norton Critical Edition*. W. W. Norton and Company, New York.
Conrad. *Heart of Darkness & Secret Sharer*. Signet Classics (NAL)
Hardy, Thomas, *Tess of the D'Urbervilles*. Penguin
Ibsen, *Four Plays*. (tr. Fjelde)
Lawrence, D. H., *The Complete Short Stories, vol. II*. Penguin

Milton, *Paradise Lost and Paradise Regained*. Signet Classics (NAL)
(Many readings on closed reserve.)

Appendix 2. Course Structure and Readings

1) Introduction to the course and the course design; distribute syllabus; discuss books; discuss reserve readings, first assignments, study and reading guides, guests.

PART ONE: EARLY WESTERN VIEWS OF THE UNIVERSE AND THE HUMAN SPECIES

WEEK I: Lecture and discussion.

READINGS: Old Testament Readings. Read A or B. A. Herakleitos, *The Fragments*. B. Aristotle, selection. Read C or D. C. Plato, *Timaeus*, pp. 19-35, 41-42. D. Dante, "Paradise," Canto I.

PART TWO: GALILEO: "NEW PHILOSOPHY CALLS ALL IN DOUBT"

WEEK II: Assignments discussed: paper, topics inquiry, collaborative learning, peer criticism. Film: Bronowski's "The Music of the Spheres." The sequel, "The Starry Messenger," about Galileo, will be shown at another time.

READINGS: Galileo, *Dialogue on the Great World Systems*, DayI, pp. 1-27, Day II, pp. 51-61, 70-76. Tillyard, *The Elizabethan World Picture*, Ch. I. (Tillyard is optional) Nicolson, *The Breaking of the Circle*, Ch I.

WEEK III: Topics Inquiry for First Paper. Lecture and discussion.

READINGS: Galileo, *Dialogue*, Day III, pp. 103-128. Nicolson, op. cit., Ch 4, Ch 5 (pp. 167-188). Milton, *Paradise Lost*, Books I and II. Gingerich, Owen. 1982. The Galileo Affair. *Scientific American* 247: 132-143

WEEK IV: Lecture and class discussion.

READINGS: Milton, *Paradise Lost*, Books IV, V (lines 1-25), VII (ll. 1-275), VIII (ll. 1-194). READ ONE OF THE FOLLOWING: Drake, Stillman, and James MacLachlan. 1975. Galileo's discovery of the parabolic trajectory. *Scientific American* 232: 102-110, Drake, Stillman, and Charles T. Kowal. 1980. Galileo's sighting of Neptune. *Scientific American* 243: 74-81 Lerner, Lawrence S., and Edward A. Gosselin. 1973. Giordano Bruno. *Scientific American* 228: 86-94

WEEK V: Optional Journals Due: we will keep them for one week or so. Keep writing on separate sheets which you can staple in later. NOTE: At this time or later, there will be an evening meeting at a nearby observatory. This meeting will be conducted by a scientist from a local college (to be arranged).

READINGS: Milton: *Paradise Lost*, Books IX, XI (ll. 638-687),XII (ll. 485-649). George Herbert, "Vanitie" and "The Temper, I." Henry Vaughan, "The World." Alexander Pope, *An Essay on Man*, Epistle I. William Wordsworth, *The Prelude*, Book II, pp. 266-471. (Note: the Pope and Wordsworth readings are optional.)

PART THREE: EVOLUTION AND THE VICTORIAN CRISIS IN BELIEF

WEEK VI: Lecture and discussion.

READINGS: Darwin, The Origin of Species, Ch 1-3 (pp. 35-103). Read one of the following: Darwin, select Letters. Wallace, "Ternate Paper." Paley, from Natural Theology.

WEEK VII: Collaborative Problem Solving: Definition of Natural Selection. Peer Critiques in class: Complete First Drafts Due in class for this session. The drafts will be read aloud in class.

READINGS: Darwin, Origin, Ch. 4 (pp. 103-130) Darwin, The Descent of Man, pp. 161-174. Stephen J. Gould. Select Essays. (optional)

WEEK VIII: Guest Lecturer: a Victorian scholar will discuss Darwin's impact on some Victorian writers. Final, Typed Papers Due in class, together with Peer Critiques and a brief Author's Response.

READINGS: Thomas Hardy, Tess of the D'Urbervilles, to p. 250 or so. Hardy, select poems. Read one of the following: Arnold, from Culture and Anarchy. T.H. Huxley, selection to be chosen.

WEEK IX: Class discussion.

READINGS: Tess of the D'Urbervilles, remainder of novel. R. Browning. "Love Among the Ruins." A.H. Clough, "Easter Day, Naples, 1849" and "Easter Day, II."

PART FOUR: THE STRUCTURE OF SCIENTIFIC REVOLUTIONS

WEEK X: Topics Inquiries for second papers. Lecture and discussion.

READINGS:Read Mayr and One of the other readings: Thomas S. Kuhn, "The Historical Structure of Scientific Discovery." Kuhn, The Structure of Scientific Revolutions. Ernst Mayr, "The Nature of the Darwinian Revolution." I. Bernard Cohen, Revolution in Science,

PART FIVE: MODERN CONCEPTS OF GENETICS AND SOCIAL INHERITANCE

WEEK XI: Optional Journals Due. Guest Lecturer: Evelyn Martinez, Psychiatric Social Worker.

READINGS: Ibsen, Ghosts. E. Martinez, "Family Systems."

WEEK XII: Lecture. Complete Draft of Second Paper Due in Class. Will be read aloud. Peer Criticism in class.

READINGS: D.H. Lawrence, 2 short stories (to be announced). Lysenko selection. Axelrod and Hamilton, "The Evolution of Cooperation." (Axelrod's book, Evolution and Behavior, is on reserve for those who wish to use it.)

WEEK XIII: Lecture and discussion.

READINGS: Read two of the following for this week: Stephen J. Gould, Reading on "Punctuated Equilibrium" Theory. King and Wilson, "Evolution at Two Levels in Humans and Chimpanzees." from John Maynard Smith, Game Theory and Evolution. Richard Dawkins, reading concerning the "Extended Phenotype."

WEEK XIV: Class discussion.

READINGS: Joseph Conrad. The Heart of Darkness.

Appendix 3. Peer Critique and Author's Response Form (much shortened)

Give your paper to one other person in the class to solicit feedback that can help you to revise your paper. Although this method will not take much time, it should provide you with some solid suggestions for revision. Of course, the author's judgment will be, as it must be, the final judgment (and responsibility). As the critic reads your paper closely, he/she should consider the following questions. Please write on this sheet as you critique the paper. You will need to use the back of this sheet as well. when you write on the back,number your continued response. The author should write an author's response which discusses three revisions in depth.

1. Are there any sections that do not make enough sense? Why so? What could be done here? Is the problem one of inadequate clarity? inadequate research information? inadequate development of an idea in depth (the single most important attribute of a sound paper)?

2. Are the ideas which are central to this paper explained with enough specificity and with clear and well-analyzed examples? Should one of these ideas be given further prominence? How? Why?

3. QUICK CHECK: Looking at the guidelines for papers in this course, are there any problems that you can spot for the author to work on? Concentrate only on the ones that will detract from the quality of the finished paper. List these and suggest remedies.

Appendix 4. Questions Used in Student Evaluation of the Course.

1. Is this the only interdisciplinary course you have taken on the college level? ( )yes ( )NO

2. Your class (junior, etc.) _________________________
   and major? _________________________

3. If you are a science or medical sciences major, how has this course affected your attitude towards imaginative literature? If you are a liberal arts major, how has this course affected your attitude towards science?

4. What have you learned in this course that, in your opinion, could only have been learned in an interdisciplinary course? Can you supply an example?

5. Has this course increased your understanding of science as an expression of human curiosity? If so, to what factors in the course would you attribute this increased understanding.

6. What was your favorite course reading, and why?

7. Has this course increased your enjoyment of reading imaginative literature? To what factors in the course would you attribute this increase?

8. Has this course affected what you will read in the future? If so, can you give an example of what you might read in the future (as an effect of this course)? Can you say why you became interested in this material?

9. If your program or future studies permitted, would you take another interdisciplinary course? Would you like to see an interdisciplinary science/literature major at Quinnipiac College?

10. What were the most successful features of this course? Why so?

11. What were the least successful features of this course? To put this question in another way, what would you like to see changed, and why?

12. With few exceptions, your two instructors were present at every class session, an unusual practice at this college. Please try to identify how this dual presence affected the class sessions.

THE DRURY EXPERIENCE: A SCHOOL OF ARCHITECTURE IN A SMALL LIBERAL ARTS COLLEGE. 2. A MODEL FOR AN INTERDISCIPLINARY, EXPERIENTIAL STUDIO.

James B. Griffin, Ph.D. - Associate Professor

The Hammons School of Architecture offers a five year professional program which awards the Bachelor of Architecture degree for successful completion. However, this program, located at Drury College, is unique in that it is rooted in a college with a strong liberal arts tradition and stresses a humanistic approach to the study of architecture. The architecture students are expected to fully participate in an educational experience which prepares them for entry into the profession of architecture, upon graduation, with the necessary technical skills and knowledge, but which also meets the general liberal arts education requirements of Drury College.

There is only one other architecture program in North America which is similarly located within a small liberal arts college. That is at Roger Williams College in Rhode Island. Both of these programs are relatively new. Architecture began in 1978 at Drury as a concentration in the Department of Art. In 1981, it was elevated to the level of a program in the Department of Art, awarding a Bachelor of Art in Architecture Studies degree. Architecture was designated as a five year professional degree program in 1984 with the program located in the Department of Art and Architecture. In 1985 the Hammons School of Architecture was established.

Drury College is a small, private liberal arts college. The 1986-87 enrollment is 1000 day students and 1700 evening students. There are 86 full-time tenure-track faculty members in the college. There are two other professional programs on campus; the school of business and the department of education. Both of these programs, as well as the architecture program, are committed to an educational experience for their students which provides a credible professional preparation as well as a strong liberal arts education.

Clearly, the professional architectural program must effectively integrate the humanistic, moral and ethical issues of the liberal arts with the technological requirements of design to achieve this mission. There are essentially four major reasons for integrating the architecture curriculum and the college curriculum.

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1. Meeting both the requirements of the National Architectural Accrediting Board (NAAB) and of Drury College gives a tight curriculum. NAAB (the national body which accredits professional architecture educational programs) has specific requirements which translate into credit hours; so does Drury College. Taken literally, the sum of these requirements, in credit hours, exceeds the number of credit hours possible in a five year program.

2. The administration and faculty of the college and of the school of architecture are fully committed to the concept of collegiality. Faculty are members of the college of liberal arts faculty before they are members of the architecture faculty. The school is enriched by its setting in a liberal arts college and in turn enriches the college by its presence. The college is viewed as a "model community" with a defined educational purpose and philosophy. Architecture must fulfill its specific function of preparing students to be architects, but it must also fulfill the goals of the model community. In order to do so, it must be thoughtfully and completely integrated into that community so that it is not merely an addition but a symbiotic part. The process of this integration is immediate for the architecture program; it will be done as the school develops.

3. Architecture students, in addition to the professional educational goals, must also meet the six educational goals of a Drury liberal arts education.

   a. Critical thinking skills.
   b. Communication skills.
   c. The ability to make mature value judgements.
   d. Autonomy (independence and self-confidence).
   e. Empathy.
   f. Habits and understanding of health and total well being.

   These goals are not only compatible with a professional education in architecture, they are recognized by the school faculty as essential.

4. The faculty members of the Hammons School of Architecture have all taught at other, more traditional schools of architecture prior to joining the Drury faculty. They are aware of the relative isolation of the professional program within the university setting. Once the architecture students have negotiated the required core of general education courses, they complete their formal education in the architecture building. The major portion of their educational experience is with other architecture students in courses taught by architecture faculty.

   a. They do not learn that complex problems require an interdisciplinary approach.

b. They do not learn to communicate with others so that they can clearly present their ideas and represent their discipline.

c. They do not develop communication skills so that they can seek information, understanding and knowledge from others.

d. They do not learn to work as members of a problem solving team.

The professional architecture program at Drury cannot be conceived or perceived in isolation of the college. Indeed, the strength of this architecture program is dependent upon the liberal arts context within, which it exists. This presents the faculty with the opportunity to provide a rich architectural education; one which draws upon the resources of the liberal arts program. It also presents the tremendous challenge of developing the curriculum and philosophy for accomplishing this. The approach currently under consideration calls for careful and controlled integration of the college and school curricula. Thus, one of the initial challenges facing the college faculty in general and the school of architecture faculty in specific is the need to identify and/or develop courses which integrate the curricula. Several levels of course integration can be envisioned. This might include the following situations:

1. A core of courses is required of all students at the college. Architecture courses will be proposed for inclusion in this core.

2. Courses in the college curriculum may, with or without modification, serve as architecture electives.

3. Existing courses may be modified or new courses may be offered by other programs or areas of study so that they specifically meet some content requirement for architecture students.

4. Certain architecture courses may be developed and presented as general education courses or as specific content courses for other programs.

5. Specific content courses may be developed and co-taught by architecture faculty with faculty from other programs.

Before proceeding, I would like to make a distinction between the terms "curricula integration" and "interdisciplinary course"; this distinction is, at least, relevant to my use of the terms. Curricula integration can take place at anytime during the four or five years of the student's education and in fact should be a continuing process. It is accomplished by an offering of courses which allows the student to draw from the various disciplines awareness, understanding and knowledge in such a way that he/she can integrate it into a comprehensive (and hopefully synergistic) educational experience.

Interdisciplinary coursework implies that the students already have basic knowledge and skills relative to their respective disciplines at the time they enter into the interdisciplinary course work. In this model, the students are the primary media for the interdisciplinary exchange of awareness, understanding and knowledge. The dynamics of the student team approach is such that the students learn from each other. Each student draws on the resources of his/her discipline. The instructor becomes a resource. Judgement suggests that the interdisciplinary experience is more effective with mature students, seniors or graduate students. These students are more secure and confident in their command of a discipline and are more inclined to participate and contribute. Furthermore, it works better if the students are more or less at equal levels of competence and confidence with regard to their respective disciplines. The interdisciplinary course is a specific example of a way to fine tune curricula integration efforts.

One course type which readily lends itself to the interdisciplinary approach is the project based architecture studio. There are a number of pedagogical models for design studios.(1) The one that will be described here had its roots in the community design center (CDC) of the 1960's.(2) During this period, a number of architects and planners responded to an increased sense of social responsibility by establishing CDC's whose purpose was to help the poor make their interests felt. The CDC's, "store front architecture", in their effort to represent the needs of people in low-income communities, developed some very effective techniques for citizen participation in the design/planning process. Although the intensity of the social consciousness has diminished, the CDC model and the techniques used have been refined and are now accepted in the mainstream of design education and practice.

This paper will describe a senior level architecture studio which offers the student an interdisciplinary learning experience. The model for this studio format was initially developed as the Community Design Center (CDC), an alternative architecture studio at the University of Nebraska. The CDC, as conducted by the author during the 1976 to 1983 academic years, started as a fifth year architecture studio. It gradually opened to accept fourth, fifth and sixth year architecture students, graduate students in planning and seniors from other programs such as art, business, journalism, recreation, sociology and urban studies. The combination and number of students enrolled in the CDC in any given semester depended on student interest and on the areas of expertise appropriate to the studio project.

The studio model was further refined as the Community Environmental Design Studio (CEDS), a fifth year architectural synthesis studio, directed by the author at Louisiana State University during the 1983 to 1986 academic years. Again, the CEDS began as a fifth year architecture studio. It grew to include senior interior design students, senior graphic design students and graduate landscape architecture students. During the final semester of operation (spring 1986) the CEDS completed six different projects involving 27 students. In addition to the CEDS director, a professor of landscape architecture co-supervised three of the projects and two professors of architecture co-supervised one project each.

The CEDS model was brought to Drury and is undergoing further refinement appropriate to the new setting within a small liberal arts college. The major characteristics of the CEDS are as follows:(3)

1. The instructor developed potential studio projects in the community. Prior to the start of the semester the instructor visited each project site to evaluate the educational potential of the project and to develop a preliminary agreement with the client/sponsor about the scope of products and a tentative budget. The instructor also made a determination of the number of students who could be constructively engaged by the project.

2. At the first studio meeting, the instructor gave a brief presentation on each project to the class, including the number of students wanted for each project team. The instructor then left the students to divide into project teams. A class of 16 to 17 students could easily handle four or five different projects simultaneously.

3. Each team during the next week had several individual conferences with the instructor to determine the nature of the project with regard to process, products, due dates and budget. In these conferences the instructor represented his learning objectives for the course and also his perception of client/sponsor needs and expectations. The students, individually and as a team, were encouraged to represent their areas of interest and objectives for the semester.

4. Each team then scheduled a site visit and meeting with their client/sponsor representative or group. They toured the site and made a presentation in the form of a project proposal. This usually was followed by a discussion/negotiation to refine the terms of the project description.

5. Each project team prepared a project contract under the supervision of the instructor. This contract between LSU and the client/sponsor was processed and a project account was established for support of project expenses.

6. Each project team was required to set up a management structure including: project plan and calendar, project file, budget control and project task and maintenance responsibilities.

7. The instructor worked with each team to set up and maintain the process (problem solving) and to assist them in the evaluation of work proposed and underway and in the identification of resources as needed.

8. Each student team was expected to manage the project through the research stage, analysis stage, synthesis stage and production stage and to deliver the appropriate products to the client/sponsor on time and under budget.

9. The students were evaluated on and the grade based on a weighted composite of five facets of their work.

Facet	Weight factor	Qualifiers
a. Products	2	Quality and appropriateness of the products
b. Management	1	Development and management of human and other resources; reasonable effort to locate human resources and use them; management of budget, project calendar, project file; documentation.
c. Participation	1	Full acceptance of responsibilities; performance as a team member and as an individual.
d. Effort	1	The quality of work produced; attention to detail; exploration of project potential.
e. Communication	1	With team members, client/sponsor, total class, resource people, instructor.

10. One very effective way of learning is to teach someone else. This concept was made a part of the CEDS operation. The students were required to discuss their project work in a number of formal and informal settings during the course of a semester.

    a. The case study discussion. Each week the studio period on Monday was set aside for the case study approach of discussing the studio projects. On a rotating basis, each project team was required to make a presentation and lead a class discussion on some aspect of their studio work.

    b. Instructor-project team conferences. Each project team was required to schedule one conference each week with the instructor. This was to discuss plans, resources, process, activities and results. It allowed the instructor to monitor progress, evaluate effort and results and to advise and counsel the students. Additional conference time with the instructor was available on the request of either a student or the instructor.

    c. Instructor-student conferences. On a need basis individual student conferences were scheduled with the instructor. These dealt with content, process, or interpersonal matters,

    and could be requested by the instructor or the student. They could also be requested by a team mate of the student.

d. Team meetings. Each student team found it necessary to schedule regular team meetings in order to plan, monitor and perform project tasks.

e. Extra-studio meetings. Through the course of a semester, each student and team found it necessary to schedule a number of meetings with the client/sponsor, with resource people, a segment of the public and others. They learned to be prepared to interview and propose, to give presentations for information and for critique and to give final presentations in offices, class rooms, conference rooms, board rooms and auditoriums.

The meetings with resource people were a large part of each project effort. This was a primary method for students to develop project content.

The studio development was influenced by thought on the topic of andragogy or adult education. The basic characteristics of andragogy as they relate to the CEDS model can be summarized to further define the studio.(4)

1. Self-concept.	The students are moving toward increasing self-directiveness and autonomy.
2. Experience.	The students are considered to have valuable experience and are therefore an accepted learning resource for the class.
3. Readiness.	The students are at the stage of developing their social roles.
4. Orientation to learning.	The course work is set up to be problem centered rather than subject centered.
5. Time perspective.	The problem centered approach allows for immediate application of the course content material as it is developed.

A course adhering to the principles of andragogy exhibits the following operational characteristics.

1. Climate.	The class setting is informal and promotes a sense of mutual respect; the sharing of ideas, information and feelings; and a pattern of working together between all the class members, students and instructor alike.
2. Planning.	A mechanism is set up which allows the students to share in the planning of the course.
3. Diagnosis of needs.	The instructor works with the students on a mutual self-diagnosis.

4.	Formulation of objectives.	The course objectives are produced through a mutual negotiation of all class members.
5.	Design.	The course is set up as a process and subject matter is sequenced in terms of readiness as indicated by problem needs.
6.	Activities.	The course is conducted by experiential techniques which the instructor modulates by the technique of inquiry.
7.	Evaluation.	The class members are involved in a mutual re-diagnosis of needs and a re-evaluation of class goals.

Another educational model which also is comparable to the CEDS studio is that of the "guided design" strategy for teaching critical thinking. Guided design is a problem focused approach and basically consists of three components.

a. The focal point is the process. The guided design process, which may be compared with the problem solving process, is made up of the following steps: Identifying the problem; stating the problem objectives; listing constraints, assumptions and facts; generating alternative solutions; selecting the most appropriate solution; analyzing, synthesizing and evaluating the solution; reporting, implementing and checking the results.

b. The second component is the content. The course content is learned outside the classroom by the students on a need to know basis as they solve the problem.

c. The third component is the problem. The problem is set up to be appropriate for the students' level of development.

The role of the instructor in the guided learning approach is defined:

a. As process planner. The instructor organizes and designs the course, constructs problems based on selected content, devises techniques and basic materials for content learning and sets up the feed-back mechanism.

b. As consultant and facilitator. The instructor provides information to groups which get off track or fall behind, asks leading questions to stimulate thought, suggest sources for information (content) search, and encourages groups to share information relative to process and content.

c. As quality control supervisor. Through feedback, the instructor provides helpful information and directs or re-directs groups as needed.

The role of the students in a guided learning course requires each:

a. To be a receptive participant in the learning experience; to be an active learner. The student can not hide as in a lecture course.

b. To communicate ideas within the group. The student is both teacher and learner.

c. To learn process (problem solving skills).

d. To work outside the class to learn content.

This is the studio model which is being proposed as the foundation for developing an interdisciplinary experiential, self-directed class. The studio has begun as a senior level architecture studio. At an appropriate point, when the studio model is working efficiently, the first interdisciplinary effort will be planned and implemented. No preconceptions are felt about that first effort in terms of the kind of project or the nature of the disciplines to be involved. It is only known that this will be a demonstration class for Drury faculty and students and, therefore, must work.

Eventually, we feel that the studio model can move "out of" architecture and be a college wide course. I continue to refer to it as a studio because I believe it will continue to be project based and action oriented.

The ultimate model which I have proposed is to establish a community of scholars within the college. In this concept, an entire semester, or even a years work for a group of students, faculty and visitors can evolve from and revolve around the project based studio. Classes, seminars, research papers, speakers, programs, etc. can all develop from and feed into the studio.

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STAFFING INTERDISCIPLINARY COURSES; STRATEGIES AND RESULTS

William Kemp, Mary Pinschmidt, Roy Smith

Interdisciplinary courses may not be for all of us all the time, but perhaps they should be for ~~all~~ of us at least some of the time. Whether we are teaching general education courses to entering students, presenting specialized material to majors, or sharing our most recent intellectual efforts with graduate students, interdisciplinary approaches have great potential. After a period of productive but increasingly splintered advances in the separate disciplines from the fifties into the seventies, students and their instructors have begun to re-examine the relations among ideas and the disciplines which first gave rise to them. Interdisciplinary courses are a welcome response to the resulting review of the typical academic curriculum.

Independent of their relevance to changing views of the best approach to structuring course offering, interdisciplinary courses offer advantages to teaching faculty. The fact is that most faculty work very hard indeed at teaching, advising, service, and research. Too often they find that the demands of their various responsibilities leave no time (or energy) for pursuing new ideas, whether in the laboratory of the library. Since some sort of challenge is absolutely necessary to continued vitality in the classroom, this conflict is not simply between teaching and research. Often the choice is between personal growth and running to stay in place.

The opportunity to develop a new course, especially one which requires faculty to stretch beyond their current disciplines, promotes the same level of involvement in the classroom that makes research enjoyable. When more than one faculty member joins in the preparation, ideas expand even more rapidly as the opportunity to reconsider pedagogy is added. In fact, sharing instructional responsibility with colleagues is the only way most ofs us can receive any sort of peer validation for our work in the classroom.

Administrators can often find practical reasons to increase interdisciplinary offerings. On a superficial level, two or more departments may share responsibility for staffing a course, increasing the flexibility of their offerings. While not common, this practice may even extend to the possibility of inter-disciplinary positions, particularly in smaller schools. More fundamentally, support for developing interdisciplinary courses can be a vital element in faculty development. More traditional types of faculty development, support for research and funding of faculty leave programs, are costly and more often than not independent of the teaching which ultimately justifies all faculty activity. Encouraging and supporting faculty while they develop interdisciplinary courses can add new material to other courses and a new perspective to the professors' visions of their individual disciplines. The experience can rekindle interest in old problems and even lead to a total reorganization of a professor's approach to part or all of a discipline. At the least, courses which the institution otherwise may be unable to provide enter the curriculum.

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With all these advantages, why are there so few truly successful interdisciplinary courses and programs? A largely unexplored problem is the differential impact of ways interdisciplinary courses can be staffed whatever, the content.

Not surprisingly, most institutions staff interdisciplinary courses with teams of instructors. And generally the assignm,ent of a new preparation includes no more in the way of support than is provided new faculty when they prepare their first traditional offerings. Our experience suggests that a teaching team can deliver its material in several ways, and that the different ways have remarkably different effects on both instructors and students. We also believe that all these organizational possibilities are available to any interdisciplinary offering. Unfortunately, the most common of these approaches to shared instruction is the least exciting (and probably the least instructive) for all concerned.

Because different course organizations produce different course experiences, we identify three significantly different types of team teaching. Turn taking is the simplest and the most common of these. Two or more faculty members divide the course content, taking sole responsibility for organizing and delivering their respective parts of the course. While tests may be joint efforts, individual items are typically supplied by each team member working independently, and grading responsibilities are similarly divided. Functionally, then, individual class sessions differ little for members of the team from courses they teach alone. For students the differences in a turn-taught course may not seem advantageous. More instructors does not necessarily translate into more individual attention. It often does result in frequent changes of emphasis and presentation style which some students will find confusing. They may also perceive a loss of clear responsibility for assignments, feedback, and even grades.

Tandem teaching is quite different from turn-taking. In tandem teaching two or more instructors are simultaneously active in the classroom, laboratory, or studio. On any given day the instructors may be involved in the same or different tasks. Student-centered activities such as lab exercises, tutorials, and small-group discussions may proceed concurrently. This approach allows more instructor contact for the class at any given time. But the demands for coordination alone require more careful thought about classroom techniques. Obviously this approach emphasizes student-focused class activity rather than traditional lectures (simultaneous lecturing by several instructors in the same room appears to hold little pedagogical promise). Overall, then, tandem teaching requires team members to coordinate their strategies and results. It also provides the team members a chance to share their classroom expertise as they develop the course.

We call the third approach to team teaching integrative teaching. It shares features with each of the other two methods but is very different in focus. While it is the least traditional and most difficult method, we believe it holds the greatest promise for both instructors and students. In integrative teaching, instructors take turns within a class meeting as the primary focus of attention, but not in a way defined by time or subject matter. All members of the team are responsible for the presentation of all material covere, interacting constantly with students and with each other. The common focus of the class is thus the particular problem at hand and the ways in which the members of the team deal with it. This approach is particularly suited for truly interdisciplinary problems which require (simultaneously) information and perspectives from several disciplines.

This sharing of ideas and information is open and ongoing exchange is as immensely stimulating, demanding, and rewarding way of teaching. In the most fundamental sense this form of team teaching promotes the development of faculty, as instructors and as thinkers in their disciplines. But students too receive an increased opportunity for grouwth. While lectures too often present only the neatly, even artificially, packaged results of investigation and interpretation, integrative teaching presents more of the process which produces those results. Integrative teaching may lead to a truly integrated classroom, with instructors and students alike involved in the discussion. And this is most likely when a problem, because of its inter-disciplinary nature, is not obviously identified with the expertise of one instructor.

Like other forms of team teaching applied to interdisciplinary courses, integrative teaching faces the political problems of sharing teaching assignments across departments. Yet even more than other team efforts, integrative teaching may be supported by administrations to move departments or disciplines closer together or to point out areas of commom interest. In any event, since the form as opposed to the fact of team teaching is a matter controlled by the team members, it is seldom a part of the economic or political considerations which form the largest part of administrative decisions in staffing. In fact, most team teaching efforts result in some version of turn taking because many instructors see expending more effort over a short period as a reduction in preparation time. Both tandem and integrative teaching require more time investment than turn taking and, if faculty are to be supported for the extra effort, a larger financial investment by the institution. Our position is that this investment is in fact a relevant, practical, and efficient form of faculty development and should be funded as such. Precisely because of its substantial value in faculty development, institutions should deliberatly support faculty efforts to form integrated teaching teams.

But integrative teaching is not a panacea. Things can go wrong. The process is unattractive and usually uncomfortable for faculty who do all their serious thinking before they say anything at all in public. Ohters derive so much pleasure from teaching alone that they're unwilling to share their classroom minutes with anyone. Nor is integrated teaching likely to solve fundamental instructional problems team members are experiencing in their individual teaching situations. Such difficulties as maintaining student interest, making accurate evaluations, and following course plans may not yield to interaction among instructors, Integrative teaching does offer an opportunity for examinig, discussing, and perhaps addressing these problems by forcing instructors to compare their approaches and their effectiveness in the same course and with the same students. More quickly and more successfully than in any other format, instructors can learn elements of their craft from one another. But because if highlights individual differences, team teaching can be a very negative experience for those resistant to evaluation, whether formal or informal.

From our experience we would offer some guidelines for using integrative teaching as a way to staff interdisciplinary courses. These guidelines involve selecting the teaching team, because we find that the team rather than the topic is the key to successful integrative teaching. Since good integrative team teaching is the best way to bolster an interdisciplinary course or program, we suggest that these staffing guidelines have widespread implications.

Several problems may reduce the effectiveness of any team approach, but they are worse for integrative that for either tandem teaching or turn taking. If team members do not have both professional and personal respect for each other, constant interaction provides ample opportunity for friction, often in front of students. Whether subtle ridicule of one colleague or attempts to impress another, the result is a dramatic shift in focus from teaching to interpersonal struggles. While all of us feel the effects of conflicts with colleagues, we do not typically bring them into our classrooms. With teaching teams, public display of those conflicts is inevitable.

A second problem involves the additional time involved in planning for integrative teaching. A good team involves little or no time savings over single instructor approaches. Failure to recognize this fact from the beginning can produce considerable conflict later over responsibilities for various artificially produced "sections" of the course.

And finally, good teamwork included the freedom to disagree, to explore an issue for the benefit of students and instructors alike. Without the mutual personal respect which is the basis of good team teaching, productive, spontaneous discussion between team members simply is not possible. And perhaps the greatest benefit for students in courses taught by truly integrative teams is the opportunity to watch and participate in the interchange which shapes, confirms, and challenges our ideas.

ACTIVE LEARNING IN AN INTERDISCIPLINARY COURSE

James Armstrong, Charles List, Bryan Higgins

Introduction

The faculty at SUNY Plattsburgh, like many of our colleagues at other institutions, share a commitment to a strong liberal arts education. In fact, there has been a lively debate on our campus about the structure and content of our current General Education Program (GEP). Local criticism of our distributive category-type program abounds, but little beyond debate, study and "curriculum tinkering" has been done. Not surprisingly, much of what has been said on our campus mirrors the criticisms found in the flurry of reports on the state of higher education which have issued forth over the last few years. The narrow and overspecialized nature of many of the GEP course offerings has been a main concern here and elsewhere. While we were members of the General Education Committee, we decided to take action by creating a model which would simultaneously avoid the narrowness problem, meet the current GEP guidelines and anticipate a change to a integrated core-type program.

From the onset we were most interested in bridging disciplinary boundaries. We wanted to achieve this end by directly involving the students in the learning process. As a result we became convinced that active or participatory learning was a necessary accompaniment to any solution of the narrowness problem. Our intitial concept was to design and implement an interdisciplinary team taught course for a GEP category in which all of our disciplines participate (i.e., Philosophy, Anthropology and Geography). The problem with this idea was that it needed approval from two committees, caused problems in the allocation of FTE and ran into the traditional turf guarding which is a part of the narrowness problem to begin with. Therefore, we decided to cluster three distinct courses (Comparative Cultures, Cultural Geography and Social and Political Philosophy) which already exist and are part of the Individual and Society component of the GEP, thereby eliminating the need for committee approval and avoiding departmental political squabbles. The separate sections of these courses are scheduled for the same hours and days. The courses meet both separately and jointly. In joint sessions, where all three classes are together, we do specially designed exercises which actively engage students in the overlapping subject matter of our disciplines (see below). During the independent sessions (i.e., when the courses meet separately) the students are presented with the perspectives of our distinct disciplines and provided with the opportunity to cooperatively prepare for the exercises that take place during the joint sessions. We were able to secure course release time through a General Education Committee program and funding from the Research Foundation of the State University of New York (Faculty Grant for the Improvement of Undergraduate Education) in order to design the exercises and coordinate the content of the three separate courses. We began experimenting with the concept in the Spring of 1986 and implemented the cluster for the first time in the Fall of 1986.

The cluster course, as implemented, has three major objectives. First, it attempts to provide undergraduate students with a broad and integrative general education experience. Students, who enroll in any of the courses, are exposed in varying degrees to all of the disciplines involved. As a result, they should see how these different disciplines share concerns while approaching significant intellectual and practical issues from different perspectives. Second, the pedagogy of the cluster, especially during the joint sessions, is intended to create an active learning atmosphere. Students then learn how their introductions to geography, anthropology or philosophy apply to important social issues. At the same time, we hope to intellectually enliven student culture. Third, we wanted a design which could be sustained in a disciplinary environment with either a core or category-type GEP. In effect, our cluster course is one possible affirmative response to Ernest Boyer's (1987) questions, "Can the American college, with its fragmentation and competing special interests, define shared academic goals? Is it possible to offer students, with their separate roots, a program of general education that helps them to see connections and broadens their perspective?"

Exercises

In this section we will describe some of the exercises used in our joint sessions. We have included several actual exercises which have been successful, along with an example of a failed activity.

A good policy for any team taught course that intends to use active learning is to tell the students what you're up to early in the semester. We used a short movie as the occasion to do this the first semester. The movie, an ethnographic film, gave us the chance to stand in front of the class, after it finished, and give our perspectives and thoughts about it. We were able to establish differences in terminologies and methods, as well as establish that we are friends and share many goals for the class. At this point we emphasized our commitment to general education as well as its significance.

It is informative to describe one exercise which boardered on disaster. This, unfortunately, was the first active learning exercise of the semester and may have influenced student attitudes toward subsequent exercises. The exercise is called "Perspectives on War," and its goal is to involve students in a panel discussion on this topic. We divided our independent classes into small groups (5-6 students) in which the students selected one of six questions on war and discussed their positions with the goal of developing unanimity within the small groups. Working together the groups prepared justifications for their positions and appointed spokespersons. So, for example, one group in the Social and Political Philosophy class chose the question "What are the causes of war?" Other questions adressed were "Are humans by nature war fighters?" and "What are the alternatives to nuclear deterrence?" Well, with hindsight the problem seems obvious. The philosophy class had 5 groups, the anthropology and geography classes had 7 or 8 each. We gave the representatives two minutes to present perspectives on their questions (What--a whole two minutes to identify the causes of war?).

Imagine then the classroom situation: about 130 students seated, about 17 - 20 students forming the panel in front and an incredibly complex topic. The results were confusion, some give and take between students, a little instruction and a lot of getting cut-off in the middle so we could move on to the next question. None of us were satisfied with what was intended to be a great learning experience.

The panel discussion exercise is, nevertheless, well worth attempting. Besides the inclass preparation, it should be structured in four phases: 1) short presentations by members of the panel; 2) questions and answers for clarification purposes between members of the panel; 3) discussion and criticism of positions among panel members; 4) questions from the audience. It is important that students prepare a written answer to their questions before the panel discussion and that they get some time to prepare for the discussion before it takes place.

This exercise failed because the choice of topics was too broad and there were too many questions and groups represented on the panel. A final failure was to try to do too many things in one class period. As if all the above wasn't enough, we asked the audience to evaluate the presentations and preparations of the panelists. So, about 130 forms had to be handed out and collected at the end of class. Needless to say, the situation came to resemble a Marx Brothers' movie with the three instructors playing the principals.

Included below are three exercises we have used which have met with reasonable success. Each of the exercises relates well to materials normally covered in most introductory cultural anthropology, cultural geography and social and political philosophy courses. The exercises should be combined with readings done by all students and it is advised that writing assignments which relate directly to the exercises be attached to them. Making participation in the exercises and serious consideration of their meaning an integral part of the evaluation process makes students take these experiences more seriously. Class time in the independent sessions can be used to allow students to prepare their presentations, arguments and strategies for the joint meetings.

Inclass exercise 1: Social Stratification and Inequality--Equality is a fundamental concept in America. "All men are created equal" is a universally recognized principle. It is not, however, always applied justly and fairly. Our object in this exercise is to analyze and evaluate the conflict between the fact of social stratification and the belief in equality.

Objectives: We want you to become critically aware of your beliefs and biases concerning this issue. We want you to come to understand other positions on this issue, positions which may conflict with your own. We want you to come to understand that progress can be made on this issue by careful thinking and discussion.

Background: Imagine that you are a member of a medical school admissions board. Your group will decide who gets into your medical school. You have many more applicants than openings. In fact, there are only three openings left, and you have five candidates in the top group. All three openings must be filled. Those not selected will be unable to attend another medical school. You should imagine that you will be required to tell each candidate what your decision is face to face.

Role-playing format: You will be meeting with your group to decide on final admissions. Once you are seated in your group do the following: 1) Introduce yourselves and elect a spokesperson. 2) Go through the candidates and decide by vote which three get in. 2/3 majority is necessary. If initial votes are inconclusive, discuss until decision is reached. 3) Identify and list the best reasons for your decisions. 4) identify any assumptions you made about the candidates or circumstances. 5) Decide which policy you followed (see below).

Student preparation: Before class you should: 1) Make your own choices for the three openings. 2) Write at least one reason for each decision. 3) On the back of your worksheet, outline two arguments in favor of affirmative action and two against.

Worksheet:

Name	Wally	Candy	Homer	Terry	Rose
Af. Act. Class	White	Hisp.	Black	White	Veteran
G.P.A.	3.2	3.0	3.3	3.6	3.1
MCAT	540	540	520	560	510
School	Yale	Albany	U.VT	Bennington	Potsdam
Age	25	27	25	28	35
M. S.	Sing.	Div.	Mar.	Sing.	Mar.

Notes: Affirmative Action Class is identified by applicant. MCAT top score is 600. M.S. refers to marital status. We include letters of application from each applicant. [Space limitations make it impossible to include examples here.]

Policies: 1) Nondiscrimination--A selection process is nondiscriminatory if it takes race, religion, sex or ethnic background into account only when they are relevant to the qualifications of the applicant. 2) Affirmative Action--This requires more than neutrality. It requires the taking of positive steps to promote more adequate representation of victimized groups within the applicant pool, and presumably among those selected. 3) Strong Preferential Treatment--Requires that positive weight be given to race and sex in the selection process. Thus, this policy may require the favoring of less qualified candidates.

Inclass Exercise 2: Power and Political Economy--Who rules in America? While we are all familiar with the standardized description of "how decisions are made" we also know that real power is very unevenly distributed. The following Peace Council exercise should highlight the dilemmas of collective decision-making.

Objectives: 1) To illustrate the relations between people and the environment. 2) To identify the conflicts between Western and American Indian philosophies. 3) To show how social factors influence decision making.

Background: Imagine the newly formed state of New York (circa 1790) has just passed legislation to construct a road from Syracuse to Buffalo (a map is included). The road will pass directly over Onandaga land. This decision has sparked considerable controversy and resulted in the calling of a special peace council. Four primary groups will participate in the discussion of this new road: 1) Local Onandaga people who have resided in this area for over 100 years. 2) Leaders of Onandaga allies from the Iroquois Confederacy. 3) White settlers from Syracuse and lower New York State. 4) Elected and administrative officials from the State of New York [Assign students to each group in roughly equal numbers]. The following actions have sparked this debate and also led to threats of violence.

Initial Conditions: 1) The state has officially appropriated the highway right-of-way and offered to pay a fair price for the land. 2) White settlers are anxious to bring progress and civilization to upstate New York. 3) The governor claims the highway will "benefit" all citizens of the state. 4) The Onandaga and their allies view this highway as a threat to their survival. 5) The State Assemblyman from Syracuse is a businessman. 6) Construction starts in three months.

Format: For the first 5-10 minutes of class the various groups will get together and organize their position. A small group of students will be selected to be the judges of the hearing. The task of the judges will be to consider the issues in the conflict, determine which values should prevail and identify an equitable solution. The Peace Council will proceed in the following way. First, one person from each group will present a short (2-3 minute) summary of each group's position. Next, the moderators will recognize speakers from the floor to respond both to the issues which have been raised and to new questions. During this process the judges may direct questions to any of the speakers. After extensive testimony the judges will convene and make their decision. They will find in favor of the American Indians or Whites, provide their solution and give their reasons. Following this, the whole class will discuss what happened during the Peace Council and the issues it raises about power, ethnocentrism and collective decision making.

Evidence of preparation: Each student will prepare a detailed two page outline which provides the following: 1) Your group's perspective with examples, evidence and logic. 2) What major objections will you opponents raise? 3) Why are these inadequate or wrong? 4) What three alternative solutions do you offer, from best to worst?

Inclass Exercise 3: Food, Hunger and Agriculture--The class is going to simulate a meeting of the General Assembly of the United Nations. This meeting will consider alternative proposals to improve the food systems and economies of Third World Nations.

Objectives: The objectives of this exercise are to make us think about the complexities of the food, population and environmental problems facing everyone. Furthermore, this exercise should give us an idea of how these problems are influenced by power, geopolitical considerations and international economics.

Format: Teams of two students will represent different U. N. member states. We will debate and discuss two resolution designed to solve some problems associated with population growth and food shortages. Member states supporting or opposed to a resolution will be given three minutes each to explain their positions. After both propositions have been formally discussed we will have a question and answer period during which representatives of other nations will be able to question any of the previous speakers regarding their position. It is expected that some of the sponsors of each resolution will speak in favor of that resolution. Anyone can oppose a proposition, but your opposition should be based on the reality of the current geopolitical situation, the economic ramifications for the nation you represent, and on more general ethical considerations. Following the question and answer session we will have a roll call vote on both resolutions. After the votes we will discuss the arguments presented and the outcome of the votes. In order to prepare for this simulation you should take some time to find out about the country you represent. You should know where it is, what its main resources are, level of industrial and agricultural development, who it trades with, its GNP, degree of urbanization, etc.

Evidence of Preparation: You should write an outline of your position on each of the resolutions. Include both arguments in favor and against each resolution and some consideration of the proposed advantages of each. Focus your arguments on the intent of these proposals rather than on their lack of detail.

CAPITAL INTENSIVE AGRICULTURAL DEVELOPMENT FOR ECONOMICALLY CHALLENGED COUNTRIES

Sponsors: U.S.A., Canada, Japan, United Kingdom, France, German Federal Republic and Italy

Funding: Funded primarily by the U.S.A. but with support from the other sponsoring nations, U.N. agencies will develop an agricultural development program for qualifying nations. Grants would be made directly to the appropriate agencies of the receiving nations. Grants would be made through the appropriate U.N. agencies. Nations who are able to demonstrate World Bank Loan support for agricultural development of the kind outlined in this proposal will be given priority.

Qualifying Nations: Those U.N. member states with per capita GNP below the median for all U.N. member states. Priority will be given to those nations which demonstrate some funding leverage in their application (i.e., have World Bank Loan support).

Program: The program will focus on development of technologically sophisticated, capital intensive modes of agricultural production for economically challenged member states. The program is intended to increase food production and cash crop production in order to better feed the growing populations of qualifying nations, while simultaneously improving and stabilizing their economies. Funding would support acquisition of equipment, agricultural extension and training, purchase of high yield seed, fertilizer, herbicides and pesticides (necessary high tech inputs), and the development of irrigation systems. The program would stress the large scale introduction or enhancement of grain crops (e.g., rice, wheat, corn) and marketable cash crops (e.g.,cotton, sugar, sunflowers and sisal). The major advantages of this program would be increased yield per acre of grain crops, more efficient utilization of arable land and the potential for developing surplus grain production for export. The development or improvement of the cash crop economy is projected to increase per capita income and GNP while helping both to reduce trade deficits and to service already existing national debts of qualifying member states.

ENHANCING SUBSISTENCE BASED AGRICULTURE FOR DEVELOPING NATIONS

Sponsors: Sweden, China, Cuba, Zimbabwe, Bangladesh, Tanzania, and Nicaragua

Funding: Monies to support this program would come through the dues of member states, but might require some increase in contributions. The program would be administered through U.N.E.S.C.O. with grants going directly to national or local agencies of the qualifying U.N. member states or to specially created, locally controlled co-ops formed in response to this proposal [co-op = a cooperative which is an organization of cooperating individuals who jointly undertake a task (like marketing a crop). A co-op could be organized on either traditional kinship ties or on voluntary ties stemming from similarity in goals].

Qualifying Nations: Those member states which can demonstrate or project: 1) food shortfalls as a result of either population increase or environmental degradation; 2) inequitable land distribution which is causing rural flight (i.e., rapid urbanization).

Program: Funding would support agricultural training stressing the reintroduction or enhancement of subsistence farming using traditional food crops and both innovative and traditional farming methods. Labor intensive agriculture would be favored, especially in countries suffering from the negative consequences of rapid urbanization. Grants would also support the development or reestablishment of local markets while simultaneously assisting in the creation of marketing co-ops and the development of marketing strategies. Funds would be provided to develop demonstration projects for the redistribution of arable land. These monies could be used for purchase of land from either corporations or wealthy landlords for reallocation to co-op participating local residents with a demonstrated need. The major advantages of this proposal are the improvement of food production, availability and distribution at the local and regional levels within the boundaries of qualifying member states. Since the proposal focuses on labor intensive methods, it will increase the employment opportunities of rural people and decrease the problems associated with rapid urbanization and alienation from the land. Since the proposal has built in sensitivity to the local ecology, environmental degradation will be avoided or reversed. Finally, this proposal should result in more equitable distribution of wealth in the qualifying member states.

We are relatively satisfied with student reaction to each of these exercises. Generally, class participation is good in all of them. We usually rely on voluntary participation. However, as issues become more complex and more dependent on outside research the level of participation tends to decline. Thus, in future meetings where we use the U.N. simulation we will call on students to respond rather than rely on their voluntary participation. It is possible to include more detail for any of these exercises. For example, in the Peace Council exercise we cue student awareness to the issues by suggesting that students consider how the Onandaga or White settlers might feel about the construction of the road or about losing their land.

Advantages, Problems and Solutions

In this section, which will serve as our conclusion, we will discuss the benefits and problems with the cluster course concept as we implemented it. We began planning this more than two years ago and we have offered the cluster twice. The issues raised in this section are the result of a great deal of self assessment and discussion among the authors with comments from their colleagues and students.

We all entered this project thinking we had created the perfect course. We were full of optimism. After all we had a structure which avoided the problems of doing interdisciplinary education in a disciplinary environment. Our cluster course has the virtue of being durable because it can withstand changing conditions, such as leaves of absence, sabbaticals and the addition or deletion of courses. We are committed to clustering courses, not our particular courses. Therefore, we could include a sociology, psychology, history or literature course as long as it is currently in the general education category in which the cluster participates. Furthermore, changes in faculty or the inclusion of other courses can be accomplished without much administrative interference.

The cluster structure isn't the only advantage. Students benefit in a number of ways. First, their introduction to our disciplines is not confined to what the disciplines are, but includes why they are important. Since the joint sections are built around contemporary issues, rather than established truths, students come to see disciplines as approaches to both intellectual and personal problems while coming to understand the connections that exist across disciplinary boundaries. Second, students benefit from the discussion of contemporary dilemmas which require value judgments. The pedagogy requires the active exploration of the relationship between values and decisions. Thus, we do not offer the students a package of values, rather we make them explore their own values while confronting possible challenges to and contradictions in their value systems. Students in the joint sessions get excited and occasionally argue with both passion and commitment. Sometimes they leave these sessions angry or defensive indicating that the exercise has hit home. Perhaps the best indication of the effectiveness of active participation is the high percentage of student who really take part in the discussions and debates which are inevitably part of the exercises. In a class of approximately 120 students we usually have more than half participate. Finally, students see, hear, and join with faculty members who are actively engaged in intellectual pursuits: disagreeing, becoming confused and coming to learn something in the process.

Additionally, advantages accrue to the participating faculty. We are all intellectually stimulated by one another and learn new things by being exposed to new points of view. We get on each other's nerves occasionally, but this probably makes all of us more tolerant. Still, as was indicated in the previous section, everything didn't go as well as we would have liked.

There were a number of coordination problems. It was especially difficult to restructure courses that have been taught frequently in the past. All of us have taught these courses before and we have organization and content with which we are comfortable and which we think of as being effective. As a result, it was impossible to develop a new outline which still fit the structure of any of the original courses. Being the tradition bound creatures we are, all of us attempted to manipulate the agreed upon structure to conform to our old outlines. Other coordination problems included the selection of mutually satisfying joint reading assignments and getting the written materials about exercises distributed with enough lead time to allow students to prepare for them. We discovered (much like reinventing the wheel) that it is harder to coordinate the activities of three people than one. This, however, was both expected and not a major drawback. Experience has either made us insensitive to the problem or reduced its intensity.

The first semester we taught the course we met jointly once a week. This proved to be too often. Some of the joint sessions lacked coherence and didn't relate well to what was taking place in our separate classes. This made it difficult for students to see the connections across the disciplinary boundaries and it also tended to trivialize the joint sessions. Furthermore, it made it difficult for us to cover the content necessary for our separate classes. In our most recent implementation of this cluster we meet jointly twice per subject area or six times all together [roughly 25% of class time is spent in joint sessions]. In addition, we take more time for preparation during our independent sessions.

Perhaps our biggest surprise came when we received the results from standardized student evaluations of the course after the first semester. All of us received lower evaluations than we usually receive and in many areas our evaluations were below the mean for the school as a whole. We used narrative evaluations also, but even though some comments were critical, they did not suggest that the students were displeased. We have attempted to understand the student reaction and believe there are several interacting factors responsible. First, this was the first time we offered the course. At times we were disorganized and lacked coordination, especially in the operation of the joint sessions. Second, the organization of the course and the pedagogy deviated a great deal from what students have been socialized to expect. Active learning, role-playing, discussing, and especially arguing with other students or one's professors are not normal classroom experiences. Some students have a low tolerance for change. Third, some students resent being the subjects of teaching experiments. Fourth, our attempts to stick to old lectures or past content occasionally created a lack of coherence for the students, especially in the joint sessions. Afterall, if a student is learning about the !Kung of the Kalahari on one day and discussing nuclear war the next, it is a bit difficult to make the connection. Finally, the instrument (i.e., the Student Instructional Report SIR) is designed to assess student responses to lecture courses and is, therefore, inadequate for our course.

We have attempted to remedy the shortcomings of the first implementation of the cluster course which we believe influenced the relatively low evaluations we received. For example, we have replaced or restructured exercises which didn't work. We have eliminated joint meetings which contributed little to the objectives of the course. We have improved coordination and done more to inform our students about the goals, structure and rationale of this cluster. We have attempted to make the joint sessions more directly reflect the subject matter being taught during the independent sessions. We have selected joint reading with which we are all more comfortable. In general, we are all more satisfied with the current implementation of the course. We remain convinced that it is a viable model of interdisciplinary education and an excellent way of increasing breadth, commonality and relevance in liberal arts education.

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BUILDING NETWORKS THROUGH THE ARTS

Michael A. Moore

A university can enhance quality learning inside its walls often by fostering quality learning outside. The university's continuing education unit can obviously play a key role in that effort by using its ability to identify new markets for educational services and build networks around them. It can go one step further, however, and feed back its programming into the university's mainstream, making a significant contribution to faculty development and curriculum revision.

Such has been the case at Bowling Green State University (BGSU) where a program called Arts Unlimited was established in 1981 and is now one of six programs operating within the Office of Continuing Education. An opportunity for quality learning was to be found in the field of interdisciplinary aesthetic education, the new market was to be the many elementary and secondary "regular classroom teachers" who had had little, if any, training in the arts, and the networking lay in the coalition that Arts Unlimited could build among BGSU arts faculty, area arts institutions, local artists, a national arts organization (Lincoln Center), community leaders, businessmen, and parents. The feedback into the University came from participating faculty who found it a source of renewal, and others who found in it possibilities for curriculum revision.

Once the pieces were in place and operating -- which required nearly two years of trial-and-error -- the nearly geometrical rate of growth since then indicated that Arts Unlimited was meeting a felt need in the schools:

Year	No. of Teachers Enrolled	No of Students Served	Schools
1983-84	15	700	4
1984-85	44	1,500	12
1985-86	95	3,800	20
1986-87	107	8,300	37

In 1986, Arts Unlimited opened a second teacher-training workshop to accommodate the increased demand for the program in the schools, and it is currently serving a nine-county area in north central and northwestern Ohio. It has received over $100,000 in grants from foundations and corporations and it has

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brought top-quality arts events to rural school children who otherwise would not have had those experiences. It has also provided an opportunity for professional development and rejuvenation for BGSU arts faculty who have been in the program and it is being incorporated into the undergraduate elementary teacher preparation curriculum. The same year, the American Association of State Colleges and Universities named BGSU a co-winner of its Mitau Award, given annually to a program that exemplified change and innovation in American public higher education. Two years earlier, Arts Unlimited was recognized by the National University Continuing Education Association for "excellence and creativity in arts and humanities programming."

The success of Arts Unlimited lay in two elements (1) its core idea and the various ways in which that idea could be used to argue for a central role for the arts in the schools and (2) the style of organization that evolved to adapt the idea to BGSU's internal and external environments

The Idea: Why Aesthetic Education?

In 1981 the president of BGSU called for a greater university involvement in the educational life and needs of its traditional service area, the 20 counties comprising the north western and north central parts of Ohio. In response to that charge, a committee of faculty and administrators from BGSU and several elementary and secondary school systems identified the arts as one area in which all sides could benefit from closer cooperation and resource sharing. Schools were feeling the impact of the economic recession which forced cutbacks in art and music specialists, classroom teachers were being called upon to fill the void despite their lack of training, and many rural schools had long felt the need for their children to experience the arts resources in the area. The University members of that committee recognized the need to increase audiences at arts events and to find more outlets for faculty activity. In short, it was relatively easy for all sides to show a need to cooperate in improving the delivery of the arts.

After examining several delivery systems, the committee chose the approach developed in 1975 by Lincoln Center Institute (LCI) which is the educational arm of Lincoln Center, New York. Lincoln Center was eager to share its experience and help Bowling Green get started by providing technical advice and teaching artists for the initial teacher workshops. The committee arranged for a faculty member to be assigned on a half-time basis to devise and implement a plan to adapt LCI's system to the small-town, agricultural environment of northwestern Ohio. In the course of that adaptation over the next six years, the "core idea" behind LCI's system proved time and again to be the driving force of Arts Unlimited as well as the criterion against which to measure policies and organizational strategies. For that reason, it is important to analyze the elements of that idea.

Lincoln Center's approach is aesthetic education, as opposed to "art education", "art appreciation", "creative arts" or any of the more familiar terms often used to describe arts programs for children. By using the arts as "tools" by which to understand the elements of aesthetics -- elements such as line, texture, form, energy, and color to name but a few -- one may come to understand something of the organizing principles of the arts themselves. By looking at or listening to a work of art -- a painting, a piece of music, a play, or a dance -- with the intent of perceiving the aesthetic elements that comprise that work of art, one might begin to understand how a painter, a composer, a playwright, or a choreographer manipulates those elements to create and manipulate images within the mind. And that gets us into the area of imagination (defined by a first-grade student in the program as "pictures you draw in your head").

If one accepts the premise that imagination is the forerunner to thinking (and therefore an essential ingredient of a child's schooling) and if one also accepts the premise that the arts have something to do with the development and advancement of images, then one can make a strong case that the arts -- through aesthetic perception development -- are as fundamental to the curriculum as the so-called 3-R's, and therefore transcend the "frill" or "enrichment" categories to which they had been consigned To put the proposition another way Teaching the arts without teaching something of the principles on which they are based is somewhat like presenting the solutions to mathematics problems without teaching students how to work them or of teaching history simply as names-dates-facts without any understanding of historical causation. It is equally important to combine both the formal study of the arts with the emotional experiencing of the arts so that students can fully confront their meaning and power. Whether the reader accepts the above argument for the arts in the schools or not, the point is that there must some clear and defensible rationale that will justify claims upon the teachers' time and energy, the schools' money, the children's attention, the University's involvement, and the artists' loyalty. In Bowling Green's case, the LCI approach and idea provided that rationale.

To implement that idea and approach, LCI had developed a three-part program that rested upon teacher training, artists in the schools, and children attending concerts, plays or exhibitions. None of these elements by itself was new, but the idea of combining all three under the rubric of aesthetic perception was. The idea, moreover, of training not the arts teachers, but of concentrating on the non-arts teacher, the teacher whom the student sees every day, was unique. And finally, the idea of learning aesthetic perception through active confrontation and analysis of specific works of art that are first presented to the teacher and then to the teacher's pupils, eased anxieties and self-doubts by the participants as to whether or not they could handle such a chore. (As one teacher summed up the program: "We are learning aesthetics, piece by artistic piece."). Lincoln Center, therefore, was getting into the business of developing a "full-service" package of aesthetic development to the schools, a process that was being replicated in a variety of ways by the other Lincoln Center affiliates, including Arts Unlimited:

1. Teacher training. A one-to-two week summer program introduces the teachers to performances or exhibitions of specific works of music, theatre, dance, or art (in most cases;

some affiliates have used other art-forms). The works they see will also be available to their children during the school year. Teachers also hear lectures on the role of aesthetics as a basic component of education and explore ways by which to take the experiences of the institute home with them. The key element of the week, however, is to be found in the "teaching artist seminars" where the teachers under the guidance of experienced teaching artists will take apart -- literally, in some cases -- the art pieces to see how they exemplify aesthetic principles and effects. They might be asked to change something in the art form (e.g. rewrite a Shakespearian scene) to see how and why its aesthetic impact is altered. Throughout the week, the point is made that they -- "regular classroom teachers" -- can play a signficant role in aesthetic development because they are being exposed to an aspect of the arts that ~~reasonably~~ intelligent laypersons can grasp. By concentrating on selected aesthetic elements of specific works of art (only one composition each in music, theatre, dance, and visual art) participants receive instruction that is manageable back in their schools and which lays a foundation of aesthetic literacy on which other subject matter or arts projects can be laid. When the teaching artists in the different arts all speak of color, line, form, texture, shape or energy, whether it be in the context of dance, theatre, art, or music, teachers begin to see how an interdisciplinary approach enhances their understanding of the entire area.

Another element, as important as the formal part of the week's work and certainly as gratifying to workshop staff are the attitudes of personal renewal, discovery, and excitement that many workshop participants express. On the evaluations that teachers make at the conclusion of the workshop are found comments such as:

> "I was truly impressed. I think it's wonderful we can renew our aesthetic perception, reflect this in our teaching, and provide such exciting programs for our children."
>
> "All of the artists, by involving us directly in the process made the arts come alive in a way that I have never before experienced."
>
> "I hope to give my students the same feeling of 'I think I can' in the arts that each of these [workshop] super teachers gave me."
>
> "It . . . had renewed that sense of discovery, reawakened sleeping senses, and . . . made me see that the arts are not a separate curriculum but a vital element in all subject matter."

The intensity of the workshop led one teacher to remark two weeks after it ended that she was still going through withdrawal!

2. The In-school program. To keep the momentum going, Arts Unlimited supplies "teaching artists" (TA's) to work with the classroom teachers in developing lesson plans and implementing strategies -- built around the arts works presented at the summer workshop --with the children. Assuming that each school building has sent a team of four or five teachers to the summer workshop, that team will choose one or two arts areas on which they wish to work during the year. (Some ambitious and veteran teams might choose all four art forms.) When they notify Arts Unlimited of their choice(s), they will meet with a TA to develop a long-term program for the year that will include four visits by the TA to each team member's classroom. (This model works best in the elementary grades but it encounters scheduling problems when implemented in junior or senior high schools where teachers meet more than one class.

The TA's play the central role in the entire process because their interaction with the classroom teachers is crucial to the program's impact on the children. It was here that an important modification in the LCI approach was made. Lincoln Center insists that their TA's earn more than one-half their living as professional artists, actors, dancers, or musicians and contracts with them to teach during their spare time in the greater New York area. Lincoln Center further screens its TA's for their ability to relate the aesthetic components of their art-from to young people in a school setting.

Ohio has not the pool of working artists that Manhattan enjoys, but we found that there are people capable of thinking like working artists. Many of them had been trained in the arts but chose other occupations, or they had followed their spouses into Ohio and out of their profession. Several, moreover, had been active in the schools and understood that environment, giving them something of an edge over some of their New York counterparts by virtue of their age and experience. Thus the Ohio TA's have come from unlikely places -- such as an associate professor of marketing at BGSU's College of Business Administration, or a "housewife" who still keeps her hand in acting through her portrayals of Emily Dickinso in The Belle of Amherst (for which she had earlier won awards in Pennsylvania and Ohio). Because these people have interests outside the arts as well as inside, the opportunity for extending Arts Unlimited's network of supporters is enhanced. Other TA's -- faculty and graduate students -- naturally come from the arts departments at BGSU or from area arts institutions such as the Toledo Museum of Art, the Toledo Symphony Orchestra, or the Ohio Arts Council's roster of artists-in-education.

3. The performances. Having the students attend performances of the works they have been studying provides both a focus and a reward for the work they did with their teacher and the TA. For many, it is the first live performance they ever attended, and their teachers make quite an occasion of it. (For the teachers, it will be the third time they will have seen that performance under Arts Unlimited auspices, but as one observed, "It had never occurred to me to see a play more than once. What I have missed all these years.") The children are able to identify with what is occurring on stage, because they had either played or sung part of the music, or had done some of the steps of the dance, or rewritten part of the play. The performance now has a context in the schools and is part of a broader field of study.

Students occasionally respond in an aesthetic way to the performances. A sixth grade student wrote in an assignment that the musical piece he had heard (Robert Frost's Walking Through Woods on a Snowy Evening) was enjoyable, but it would have been better if it had been dramatized. A third grader asked during the question-and-answer session at the close of an Arts Unlimited performance if it was actually live or taped!

The performances thus combine both the intellectual and emotional elements of the arts and justify exploration of both as an integral field of legitimate inquiry in the classroom. At a time when education seems to be increasingly fragmented into "byte"-sized segments, and most teaching and learning operates on an assembly-line model, especially in junior and senior high school, aesthetic education offers an alternative approach because of its commitment to an integrated and synthesizing inquiry into the world around the child, and its ability to energize all of a person's learning senses, not just the cognitive.

Organization: The Politics of Aesthetic Education

Although the idea of aesthetic education, LCI-style, provided exciting possibilities, it also required a structure that could adapt it to the local environment. As mentioned earlier, Ohio was not New York, and Arts Unlimited was the first Lincoln Center affiliate to try the approach not only in a rural setting, but also exclusively within a university. The other LCI affiliates were legally-incorporated bodies with their own board of directors, and there was a serious question as to whether or not Arts Unlimited could avoid the fate that befalls many so-called innovative programs in academia -- being co-opted by some other program, disappearing in the mire of faculty politics, becoming misplaced through administrative inadvertence or losing sight of its mission through shortcomings of its director.

In looking for "lessons to draw," it is tempting to organize the past administrative experiences into some kind of historical narrative that emphasizes only the "correct" decisions and gives the impression that Arts Unlimited was on a pre-destined track to success. Such was not the case. Plenty of mistakes were made and on more than one occasion it was simply luck that kept the program going. With such a caveat in mind then, the following observations are offered:

1. It is helpful to have friends in high places. In Arts Unlimited's case it was an Associate Provost (the chair of the original committee that chose the LCI approach) who later became the Dean of Continuing Education and who was total in her commitment to the program. She provided a safe haven for the program, and because of her academic training as an aesthetician, provided a necessary sounding board and supportive criticism. Another important friend was the director of the artist-in-education program of the Ohio Arts Council. Rather than view Arts Unlimited as a threat to her bailiwick, she saw it as an ally and supplied funding at crucial times. That relationship has evolved into a joint demonstration project in two schools in 1986-87 that combines the Arts Unlimited TA's with their emphasis on the work of art, the Ohio Arts Council's artists who emphasize their personal creative processes, and the reflections of a "critic-historian" who shows teachers and students how both approaches can be used to develop critical thinking skills.

2. It is important to emphasize the cooperation between gown and town and avoid the impression that the program is just another scheme to aggrandize the university. A town sometimes gets uneasy in its relations with a university (particularly if the school is as large as the community). Arts councils have been concerned in the past that universities did not pay enough attention to community needs in developing and marketing arts programs -- reflecting the "ivory tower" image that higher education has had. For these reasons, the formation of a citizen's advisory committee has become important. Comprised of nine members who are educators, artists, arts administrators, businesspersons, and parents, the committee is drawn from roughly the same geographical area being served by Arts Unlimited and provides insights into the peculiarities of the many small communities and school districts, all of whom strongly reflect Ohio's tradition of dispersed population growth (as opposed to megacities), the belief in the self-sufficient town, and a distrust of "big government", be it in Columbus or Washington.

3. The continuing education unit may be the most appropriate place for an aesthetic education program. The tensions and "turfing" that often characterize departmental relationships on campus might be avoided by placing such a program

on relatively neutral ground, and with people who may be viewed as honest brokers. One of the reasons given for hiring an historian as director of Arts Unlimited was that, in addition to his administrative experience and interest in interdisciplinary programs, he was not an artist or arts faculty member and therefore less likely to favor one department over another[1] (The fact that he also held tenure and 15 years seniority was helpful.) Since BGSU's Continuing Education office, moreover was not an "academic" department, it was not seen as a competitor for student credit hours but rather as a source of hours for departments whose funding and position in the university depended in part on the numbers of enrollments they could generate.

Placing the program within Continuing Education made sense for still other reasons. A continuing education unit must be responsive to the changing educational needs and demands of the communities it serves. It also helps to be able to anticipate those needs as well as identify new constituencies. It is less protected from shifts in the market place than are the academic departments, and while this may induce insecurity among continuing education staff members, it is also a powerful incentive to innovation, creativity, and hustle. Continuing education programs are usually measured by their managerial and financial soundness as well as their educational value, and the arts are no exception. This constraint has proven valuable in the evolution of Arts Unlimited, at a time when financial problems and changing priorities in the funding patterns of foundations are forcing arts agencies and programs to take a hard look at the way they do business.

4. It is important to seek new applications for the "core idea". Arts Unlimited benefitted from an already well-developed concept that emanated from Lincoln Center. The concept, moreover, lent itself to continued and continuous development and adaptation, while at the same time it provided a critique of existing practices and a stimulus to fresh thinking. Although the concept began as an in-service project for teachers already in the field, it seemed natural, for example, to ask why it could not be utilized by the College of Education as part of its pre-service training of future teachers. If schools were going to run short of arts specialists and call upon other teachers to fill in, if the arts were going to change the "3-R's" into the "4-R's" (however far in the future such a possibility lay), and if the LCI approach to aesthetic education had such influence over the attitudes of teachers, why should student teachers have to wait until they were out of college? In 1985, the Ohio Department of Education mandated revisions in teacher education to require that elementary eduation majors have more academic courses to balance their professional courses. This enabled Arts Unlimited, in conjunction with the BGSU College of Education, to write a "fine arts specialization" option of 20 semester hours that students may incorporate into their program. That specialization consists of a course in aesthetics, several courses to be chosen from art, music, dance, theatre, or radio-television-film, and a capstone seminar in interdisciplinary aesthetic perception, modeled after the Arts Unlimited summer workshops. (Lest the arts specialization preparation programs feel neglected, discussions will begin soon to explore ways by which art, music, or theatre education specialists in the schools can benefit from the interdisciplinary aspect of Arts Unlimited.)

5. It is important to see how the program can tie in with aspects of the university other than its academic needs. One obvious area is the performance capabilities of the departments and schools. Since Continuing Education is not part of a traditional academic unit and can move easily among the departments, it can both utilize and enhance performances of the arts areas. As one example: Arts

Unlimited has had a strong working relationship with BGSU's Department of Theatre. It has utilized performances of its children's theatre troupe and it has drawn upon the expertise of both faculty and graduate students to acquaint new schools with them. This has set the stage (so to speak) for a new venture: to bring in Kabuki theatre from the University of Illinois and expose both the on-campus students as well as Arts Unlimited schools to something that most had never experienced. Not only will the Department of Theatre be involved but also the Asian study program, and continuing education courses in Japanese being offered to area businessmen whose companies are doing business with Japanese firms.

6. Devise ways by which such a program can become cost-effective. A supporter of Arts Unlimited (who is also a banker), argues that few other program offers a bigger bang for the buck. The costs to the schools is less than $6.00 per pupil for the entire package, out of total per-pupil outlay of less than $20.00. The cost-effectiveness of the program is due to economies of scale, having a wide varfiety of funding sources, and utilizing the considerable array of in-kind of resources of the University.

The economies of scale center around the fact that for each teacher trained, the program will reach 20 to 30 students each year thereafter. So long as a TA can be scheduled to teach four to five classes per day, considerable savings can be achieved. The funding sources include not only BGSU's commitment, but also support from local and state arts councils, the National Endowment for the Arts, teacher tuition fees (in turn triggering state subsidy support, which in Ohio is enrollment-driven), and by appealing to area businesses, particularly those who are establishing extensive branch operations and eager to establish good community relations.

7. Let the arts "do their job." There is so much to be said in behalf of the transforming, holistic, and integrative power of the arts as a fundamental part of the basic school curriculum. It calls for an approach and attitude that may seem unsettling to some teachers, because it is based on the premise that there are no "correct" answers to aesthetic questions, that a teacher ought not (and need not) act like a controlling authority, that the affective mode of learningo is as important as the cognitive, and that both teachers and students should feel free to take risks and be vulnerable in their quest for understanding. All of this is a far cry from the traditional recitation or drill with its emphasis on rote learning. It is interesting to note that when schools are measured for their educational excellence, one of the first questions asked is about the breadth and quality of their arts programs. It is more than interesting to speculate what American education would be like if all subject matter were approached from the standpoint of this approach.

Such possibilities have made Arts Unlimited exciting to its teaching artists because the concept of aesthetic perception has encouraged them to grow and experiment with their understanding of the arts. The classroom teachers have reported a renewing experience in the program, as have the teaching artists. This in turn has continued to stimulate the students, giving all the chance to experience a little more of the "dignity and drama of being human."

NONTRADITIONAL EDUCATION IN TEXAS

Michael J. Pierson
Oscar L. Dorsey

The emergence of nontraditional educational programs for adult students is a growing phenomenon in American higher education. These types of programs can be characterized by their flexibility to accommodate individual needs, ability to grant credit for experience, and innovative delivery systems at remote locations. This descriptive study was undertaken to determine the type and extent of academic adaptations that Texas postsecondary institutions are making to address the emerging needs of the adult population and identify items that affect program quality and growth.

The purpose of this study was to gather information on institutional plans and policies to meet the educational needs of nontraditional students in Texas, and to investigate how different types of institutions are responding. A questionnaire was developed and mailed to 119 Texas postsecondary institutions. These institutions include public two-year, public four-year, and private four-year types. The questionnaire gathered data on nontraditional program characteristics, student services, and perceived factors that effect quality and expansion of nontraditional programs. Of the 119 questionnaires mailed, responses were received from 64 (53.78%) institutions.

Results

For purposes of this study a nontraditional program was defined as a program that offers one or more of the following: (a) extensive credit by exam program, (b) credit for noncollegiate instruction, (c) credit for work life experience, and/or (d) off-campus courses. Using this broad definition, only 24 (37.50%) Texas institutions indicated that they offered a nontraditional program. This does not compare favorably with a 1978 study conducted by the Carnegie Council on Policy Studies in Higher Education. This study indicated that 63% of all institutions of higher education were making academic changes and recruiting students for off-campus programs, 81% awarded credit through the College Level Examination Program (CLEP), and 41% awarded credit for noncollegiate instruction (Stadtman, 1980).

Institutions were also asked to identify their affiliation or membership in organizations that promoted nontraditional education. Only 17.19% of the institutions were members of the Council for Adult and Experiential Learning (CAEL) and 25.00% were members of the Servicemembers Opportunity Colleges (SOC). More specifically, 10.94% of the four-year private institutions, 3.13% of the two-year public institutions, and 3.13% of the four-year public institutions were affiliated with CAEL. Also, 14.06% of the two-year public institutions, 7.81% of the four-year private institutions, and 3.13% of the four-year institutions were SOC members.

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The type of nontraditional program characteristics were examined. It is important to note that the most popular program characteristics were credit by exam (35.94%) and offering courses off-campus (32.81%). Two-year public institutions had the highest rates of involvement with these characteristics. The least popular options were offering credit for work life experience (26.56%) and noncollegiate sponsored instruction (31.25%). Four-year private institutions had the greatest involvement with these alternatives.

Institutions that offered credit by examinations were asked to identify the types of examinations and their credit granting policies. Most of the institutions used the CLEP General and Subject Exams. The means for the minimum scores required on the CLEP exams were 445.54 for Mathematics, 472.00 for Humanities, 473.62 for Natural Science, 477.17 for Social Science/History, 534.85 for English Composition, and 49.58 for CLEP Subject exams. Two-year public institutions generally required a lower minimum test score than four-year public and private institutions. One exception was English Composition. On this test, private institutions required a lower score than two-year and four-year public institutions. Another important difference was the private institution's policy on the maximum number of hours awarded (50.20 hours) by examination. They generally had a more liberal policy on the maximum hours awarded for examinations than two-year public institutions (25.25 hours) or four-year public institutions (33.00 hours).

Investigation of the credit granting practices for noncollegiate sponsored instruction revealed that 100% of the four-year public and private institutions offering this option, utilized the credit recommendations of the American Council on Education (ACE). It is noteworthy that only 57.14% of the two-year public institutions use the ACE recommendations. It is also significant that four-year private institutions have a more aggressive posture toward awarding credit for noncollegiate sponsored instruction than other institutions. The mean maximum award for four-year private institutions was 50.40 hours, four-year public institutions was 32.00 hours, and two-year private institutions was 36.33 hours.

Policies regarding credit for work life experience were also examined. Credit for work life experience was the least utilized nontraditional characteristic (26.56%). Most (88.24%) of the institutions that awarded credit for work life experience utilize the portfolio method for identifying and documenting work life experience. There was some policy differences in terms of the maximum amount of credit awarded for these types of experiences. Four-year private institutions had a mean maximum award of 35.50 hours, four-year public institutions was 27.00 hours, and two-year public institutions was 24.75 hours. Due to assessment difficulties associated with work life experience, a more conservative number of maximum hours was probably established for this option than noncollegiate sponsored instruction or credit by exam.

Off-campus courses, offered by nontraditional programs, were examined in terms of their delivery. Most of the off-campus courses were offered as resident credit. Two-year public institutions (54.55%)

were utilizing instructional TV delivery. Only 14.29% of the four-year private institutions and none of the four-year public institutions utilized instructional TV. Also, delivery of most off-campus courses was during the evening and in an accelerated time format.

Off-campus courses were also analyzed according to their location. A total of 128 off-campus sites were identified. Only two of these sites were out-of-state and they were taught on military bases by four-year private institutions. Of the in-state sites, 83.33% were non-military and generally served by two-year public institutions. In-state military sites accounted for 16.67% of the in-state sites and were generally served by four-year private institutions. Heavy participation of the four-year private institutions on military bases is probably a result of the public institutions' inability to make appropriate academic adaptations and the provision of tuition assistance to fund the tuition differential between public and private institutions.

One of the critical issues in extending courses away from the parent campus deals with the utilization of part-time faculty and its effect on quality. Data revealed that 76.19% of the Texas institutions offering nontraditional degrees staff off-campus courses with both part and full-time faculty. Four-year public institutions only use full-time faculty and no institution uses only part-time faculty.

All of the nontraditional programs have a residency requirement. The range for two-year public institutions was 12-30 hours, 30-42 hours for four-year public institutions, and 3-30 hours for private institutions. Private institutions had a substantially lower mean residency requirement (26.33 hours) than public institutions (36.00 hours). Most of the institutions (79.17%) allowed the residency requirement to be completed at the off-campus sites. Only one of the public four-year institutions used off-campus courses to satisfy the residency requirement.

In terms of articulation and transfer of academic work from two-year institutions there was little difference between public and private four-year institutions. The mean transfer hours for public institutions was 64.00 hours and 67.33 hours for private institutions. However, public institutions were more willing to accept technical and vocational work from a two-year institution. Only 70.00% of the private institutions would transfer technical and vocational work as compared to 100.00% for public institutions.

The issue of transferring credit awarded for nontraditional learning experiences was also investigated. Most four-year public institutions (66.67%) will not transfer this type of credit. Private institutions (90.00%) were more likely to accept transfer credit for nontraditional learning experiences.

Financial issues related to delivery of off-campus courses are extremely important. All of the two-year and four-year public institutions are constrained by legislation to charge the same rates for off-campus courses as on-campus. Private institutions also generally charged the same rate for off-campus courses. Some of the private institutions (22.22%) offering nontraditional programs indicated that they lowered their tuition rate for off-campus courses.

Finally, institutions were asked to identify and rank items that negatively affect nontraditional program quality and expansion in Texas (Table I). Two-year public institutions identified institutional and Texas College and University Coordinating Board restrictions along with insufficient student demand and limited faculty resources as the more important items. Four-year public institutions identified state legislative and Texas College and University Coordinating Board restrictions with limited funding and faculty resource problems. Four-year private institutions identified limited funding and faculty resource problems with the high cost of tuition and support services. Generally, program quality and expansion was limited by availability of resources for all three categories of institutions and legislative/Coordinating Board restrictions for public institutions.

Table 1
Mean and Standard Deviation of Items that Affect Nontraditional Program Quality and Expansion

	2-year public		4-year public		4-year private	
Items	Mean	S.D.	Mean	S.D.	Mean	S.D.
Insufficient student demand	2.40	1.52	9.00	0.00	5.57	3.21
Limited availability of student aid	7.33	3.79	10.00	0.00	4.57	1.72
Limited faculty resources	4.20	3.27	2.00	1.41	3.14	2.12
Limited funding	4.40	2.91	3.00	1.41	3.57	1.99
Maintenance of academic standards	5.50	1.91	7.50	0.71	4.57	3.65
Cost of support services	6.00	2.00	4.50	2.12	4.50	1.69
Cost of off-campus classroom facilities	6.67	4.93	7.50	0.71	6.14	2.55
Legislative restrictions	4.67	1.53	2.50	2.12	8.80	1.92
Coordinating Board restrictions	2.00	1.41	3.50	2.12	8.40	3.21
Institutional restrictions	2.50	1.29	5.50	0.71	5.71	2.43
Tuition cost	0.00	0.00	0.00	0.00	1.75	0.96

Public institutions seemed to be genuinely hampered by controls. The Texas legislature reduced funding for off-campus courses in the state appropriations bill. Funding is reduced by 35% if an institution generates more than 7% of its total semester hours off-campus. Cross and McCartan indicated that these policies "... would appear to have the potential for removing possibly important access to educational opportunity and for discouraging good, nonduplicative programs..." (1984, p.15). It would appear that issues regarding adult access are not important. The Lifelong Learning Act of 1976 states that:

> ...society should have as a goal the availability of appropriate opportunities for lifelong learning for all of its citizens without regard to restrictions of previous education or training, sex, age, handicapping condition, social or ethnic background, or economic circumstance. (U.S. Department of Health, Education, and Welfare, 1978, p.C-1)

Conclusions and Recommendations

Only 37.50% of the Texas postsecondary institutions that responded to the questionnaire were participating in nontraditional educational activities. The level of involvement of Texas institutions is extremely low. This could be explained by a number of factors. First, most of the educational institutions in Texas have not experienced serious demographic shifts in traditionally aged (18-22 year old) students. Second, regulatory policies regarding nontraditional educational programs are very conservative.

Of those institutions participating in nontraditional education, four-year private institutions tended to be more involved and less conservative in their policies and practices. Their programs generally had most of the nontraditional characteristics, granted more credit for nontraditional forms of learning, had lower residency requirements, and sponsored most of the military base programs. Of the three categories of institutions, four-year private institutions seemed to be more willing to serve the adult population.

Two-year public institutions taught at more off-campus sites than any other category of institution. They seem to be particularly sensitive to the access issues of the adult students and are experimenting with greater utilization of credit for nontraditional forms of learning and instructional TV.

Four-year public institutions, as a whole, are the most conservative category of institution. Their conservative approach seems to be a product of state regulatory policies that hamper creative academic adaptations to serve the adult clientele. Additional research needs to be undertaken to determine specific factors that limit nontraditional program development with this category of institution.

Challenges to higher education lie ahead because there will be fewer traditionally aged students. Between 1980 and the year 2000 the percent share of the working-age adult population in the age group 15-30 will drop from 40% to 30%. This will lead to a substantial increase in job opportunities for young people before they graduate with a degree, requiring colleges to prepare for this group who will dropout and re-enter at a later date. This adds up to the inevitability of an intermittent, recurrent undergraduate attendance becoming a norm rather than an exception. The data in this study indicates that Texas institutions are ill-prepared to face this task. Four areas of change should be investigated now to prepare for the challenge: (a) incorporating nonacademic learning experience in the interrupted learning cycle, (b) modifying the coursework delivery system, (c) looking at the traditional degree for possible changes in sequence and quality of experience, (d) developing nontraditional academic programs. If institutions of higher education fail to study these issues and find appropriate responses to serve the second and third career student, the public may very well question the level of funding for postsecondary education.

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GENERAL EDUCATION AND THE FORMATION OF FACULTY CULTURE

Trent Schroyer

Ramapo College of New Jersey was founded in 1971 as a college dedicated to the academic mission of liberal arts undergraduate education but was formed within a non-traditional academic structure of interdisciplinary schools. Having both disciplinary and interdisciplinary majors, the recent student trend has been increasingly toward vocationalism. Thus, not only has the interdisciplinary motif become less and less central to the college's programmatic planning, but the fiscal cutbacks since 1973 have cut in half the projected development of the college. Stabilized now at about 3200 students, the college is recovering from a period during which the crisis management and faculty-administration struggles created a context of bad faith that was discouraging for all. In this context, it was the development of an interdisciplinary general education process that began to restore a sense of academic vitality to a burnt-out faculty. At this time, April 1987, the general education process has become a major structuring process within the college and extends from the freshman to the senior year.

The following attempts to interpret this process in a way that records both the process, as the forming of a faculty culture, and the sense in which this process also extends to the formation of a general education philosophy featuring a discourse-ethic. It is essential to add that this reconstruction is a highly idealized one from the point of view of one faculty participant. Other perspectives on this evolution are also possible and, at present, may be as objectively accurate - but it is my belief that the following account will become persuasive.

1. The Communicative Process of Forming a General Education Program at Ramapo College.

As a member of a Faculty Summer Commission No. 2 in 1978, I had contributed a paragraph to the final report which was later put into a 1980 Ramapo Self-Study Report. This paragraph states the thesis of this paper-namely, that a faculty culture can form around the dialogue, and pragmatics of consolidating and forming a faculty consensus about a general education program:

"....liberal education at Ramapo must not be reduced to the reinforcement of the achievement-ideology which identifies education with vocational training. We can challenge this trend by orienting all students toward the development of a capacity for critical reflection upon everyday life, an awareness of the centrality of rational communication in modern civilization, and a commitment to responsible action as citizens of society. Rather than assuming we can supply a unified world-view in the content of our general education requirements, we must introduce students to the process of rational give and take in which we, as a faculty, try to achieve

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the Ramapo ideal of interdisciplinarity. To exemplify discourse in our courses will require something more than the acquisition of a basic stock of knowledge. This something more is the cultivation of the capacity to recognize how different concepts and principles lie behind different approaches to disciplinary problems. Thus in addition to transmitting content we must also represent how to enter into a process of learning in which concepts and methods must be both clarified and questioned as they are put into play. To teach that methods and concepts can change as a result of critical reflection as well as from new discovery is to communicate in practice that disciplinary learning and interdisciplinary discourse are inseparable. This mode of learning requires demonstration through a practice. We must embody this value in our teaching and in our understanding of the process and end of education at Ramapo."

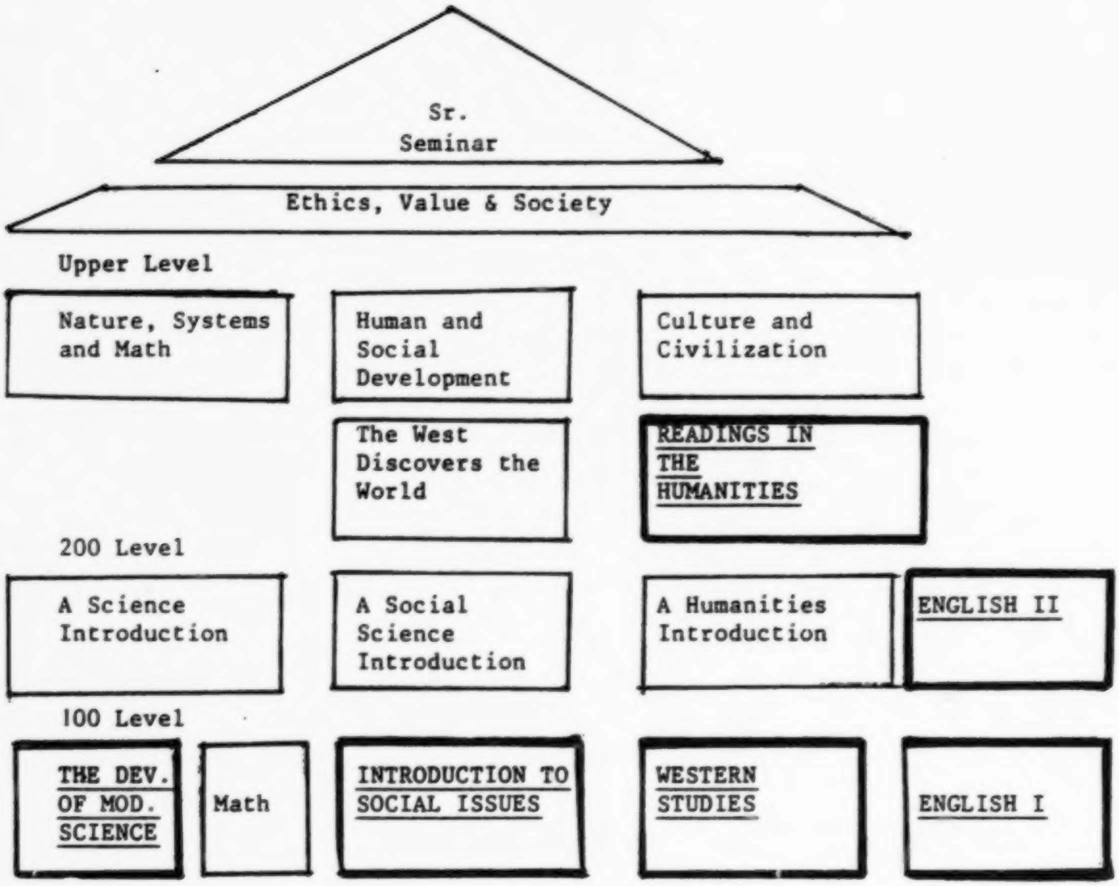
Whereas this perspective on rational discourse derives from the communicative ethics of Jurgen Habermas and Karl-Otto Apel, what is described here is the constitutive process of Ramapo College's general education committee in their interaction within the college community. By establishing an open communication process with every academic unit in the college, both schools and majors, the general education committee has constituted the faculty as an active subject that is developing its own framework of reciprocal expectations about the components, coherence and self-evaluation of the all-college general education program. By selecting already existing courses and proposing the possible development of new courses, the initial general education program of 32 credits has been expanded to 53 credits as of 1986. Validation of this expanded program by a faculty vote of 50 to 2 also indicates that the pragmatic process of the general education program was overwhelmingly accepted by the faculty as a consensus-forming mechanism.

The program was initially organized around the science, social science and humanities categories but after some years of general education process it came to a form represented in the chart on the following page.

The general education process created a new medium of communication between all majors and schools, and thus brought all the academic units together into a new form of college interaction. With a representative from every school of the college, and with the aid of several grants from the N. J. Board of Higher Education, an ongoing communication process was established with a widely shared set of expectations about curriculum planning and faculty development.

Although we began this general education process in 1980 with an administrative and faculty mandate, the process was thereafter carried by a self-directing general education committee that received little support from the administration. In retrospect we believe that it was this negative administrative contribution which helped us to legitimate the process more than anyone would have imagined. The relevance of this seemingly snide point is that a general education process that follows the normal procedures of academic management would not be sufficient for the forming of a faculty culture. Normal administrative processing, guided by criteria of efficiency of resource use, actually frustrates the formation of a faculty culture because it cannot distinguish between manipulative and non-manipulative academic policy formation. Administrators, and management-oriented faculty, tend to presume that academic organizations, like any other goal-achieving institution, are shaped by realistic management decisions.

GENERAL EDUCATION PROGRAM



▭ The thickly outlined boxes refer to core courses. Except for English I and II, these are 4-credit courses.

▭ All other spaces refer to course categories (e.g., Nature, Systems and Math, A Humanities Introduction). The various convening groups, together with the General Education Committee, approve a group of electives for each category.

100 and 200 Levels: Correspond roughly to first and second year. The category "Ethics, Value and Society" is a 300 level course.

However, orientation to purposive rational administrative processes actually distorts communicatively rational academic processes because they go beyond the operations of goal achieving procedures and are oriented to the end of reaching an understanding. Only through communicational discourse and the stimulation of commitment to discourse can the expectation for reaching an understanding constitute a general frame of reference for academic cooperation. Only by permitting a faculty committee to have responsibility for both a curriculum planning process and its adminsitrative implementation could the ends of rational discourse be reconciled with the resource limits and goal achieving constraints of a state college context. Within this combined charge, decisions made were not manipulative in that they can be presented as conditions that temporarily limit further integration of a general education program. On the other hand, fixed dictates about efficient resource utilization would have been manipulative by subordinating process to purposive goals.

Making the general education process primary means that the form of the process goes beyond any final content. That is, the program is always open to reformualtion. No final philosophy of general education will emerge -- only the process itself can become the focus for reflection on guiding principles.

2. Discourse About the Ends of General Education at Ramapo College

The General Education Committee at Ramapo was presented by an original list of 10 of the usual goals of general education as compiled from various sources. This list was ignored throughout the pragmatic process of forming the general education process because of the widespread pessimism about the possibility of getting a consensus about general education. Critics of this evasion, especially philosophers, asserted that a "clear and cogent philosophy of general education" was needed or the whole process would be a sham.

However, at this date (April 1987), the all-college process has arrived at the juncture of forming criteria for the 300 level courses in "Value and Society." Achieving a consensus about these ends will result in a further intgration of the whole program, and this paper is an effort toward this end. A push toward specifying the goals of general education came in the challenge of the coordinator of the History major, who demanded more clarity in return for revising the Western Studies course. The Committee went back to the unused inventory and consolidated them into the following:

a. Communication Skills
    - The Development of Communication Skills
b. Social, Cultural, Historical Insight
    - Insight into Contemporary Social Life that Extends to Other Cultures
    - Understanding Individual Human Development and Its Relation to Social Development
c. Critical Thinking
    - Reflection Upon the Different Approaches to Knowledge in the Sciences, Social Sciences, and the Humanities
    - The Ability to Think Critically About Values

These three categories are being submitted to the faculty and will be refined in a 300 level curriculum development seminar and in an end of the semester workshop -- both supported by New Jersey grants. The outcomes of these discussions will be submitted to the Faculty Assembly at the beginning of the Fall 1987 semester. We believe that the outcome of these discussions will be successful because of the consensus already implicit in the process. But to make this consensus more explicit, I would like to review the claims about the end of general education that have been articulated during the course of Ramapo's general education process. By entering into discourse with these perspectives, I would like to defend the thesis that orientation to discourse about cognitive claims is a sufficient minimalist goal for a general education program.

2.1 On the Claim that "A Liberal Arts Education Must be a Remembrance (ANAMNESIS) of the Western Tradition"

As a means of overcoming the "relevance" criterion of the 60's, many academic programs have returned to the classical ideal of the "eternal values" that lie behind the appearances of historical change. Only after such an encounter, it was argued at Ramapo, would it be possible to orient undergraduate students to "critical thinking" (in the wide sense named above). In one variation, this argument led to the charge that rushing into critical thinking about ideologies, etc., contradicts the role of Socratic teaching in which the experience of thinking, like the slave boy in Plato's Meno, leads to an aporia, or the experience of knowing that one doesn't know. Without appropriate immersions in western origins, critical thinking leads to dogmatic opposition of the world in which it is actually the teacher of a critique's values that will be taught. On this account, the possibility of moral education would mean recreating the insights of these founding events by encounters with key documents, and only encounters with these "experiences" of western history prepare students for "critical thinking."

I contend that such recollections, or anamnesis, based upon the classical ideal of mimesis of the soul to the ordered movements of the "cosmos" is no longer a viable notion of how theory relates to the practice of life. The greater complexity of modernity makes any classical conception of reason that claims a unity of theory and practice impossible because physis, psyche and polis no longer can be viewed as potentially forming an eternal order. The painful realities of contemporary fragmented social consciousness can no longer be harmonized by the classical ideal of the universal arts. The coherence of the contempoary world cannot be represented by the recovery of the traditional forms that unified the ideas of truth, justice and beauty.

As an unintended consequence of 500 years of political, economic and scientific revolutions, the coherence of Western culture is fragmented beyond the capacity of the traditional liberal arts to represent their continuity. Science, morality and aesthetic representations fragment into specialized spheres of cognitive truth (facts), normative rightness (values) and aesthetic "expression" (beauty). Each of these disjunct spheres has become the province of specialized professional competences -- with science claiming objective truth and implying conventionality and subjectivity for the other forms of knowledge.

Modernity becomes, after the emergence of the trend toward professionalization in all fields, an endless affirmation of the progressiveness of knowledge which, however, turns with scorn against all tradition and practices that are not subjected to the ongoing criticism of professional learning. The establishment of professional elites in the sciences, law, human services, as well as in the fine and performing arts, contributes to a growing distance between the cultures of experts and the general public.

Of course, professionalized expertise and its institutionalization into social institutions occurs simultaneously with new forms of cultural revolt, anomie and personal disillusionment. Contrary to the contemporary neo-conservative attack on the "modernist culture" (avant-garde countercultures) as the "cause" of modern nihilism, the actual pattern of techno-economic progress and dissolution of cultural tradition develop together and feed on each other as seemingly incompatible cultural forms.

There is a double relation here, as Max Weber tried to express in his interpretation of the rise of the West as rooted in the rationalization process and the simultaneous disenchantment of the world. That is, separation of cognition from normative and aesthetic-expressive spheres fragmented all traditional views of a unified cosmos and fragmented the unity of reason, as known by the classical and theistic cultures. We are increasingly dependent upon trained professionals to provide us with systematized rationales (both cognitive and normative) that also displace the semantic contents of traditional world-views (i.e., religion and metaphysics, etc.). The cost of modernity is the progressive disenchantment of the world in the sense of:

- The systematization of knowledge and reconstruction of religious, moral, legal, aesthetic complexes that are separated from their magical auras and no longer available at the level of common sense judgements;

- The separation of self-extending empirical learning processes from traditional cultural universals in the sense of externalization of unnecessary hypotheses, such as transcendent purposes (telos) or particularistic ethnic or national identities.

These self-extending learning processes cannot be reversed insofar as new controls over nature define new needs, new liberations from conventionality release new desires.

Therefore, renewals of classical educational ideals cannot reunify the cognitive, normative and aesthetic spheres. Those who promise this are engaged in potentially irrational projects of creating utopian or ideological totalisms that would restore holistic rationality, organic "community" (as pseudo-gemeinschaft) that can only be cognitively and/or socially regressive. To seek a re-enchanted world-view that would attempt to reunify the formal structures of cognition, normativity and aesthetics into a new idea of the cosmos would be to posit a theoretical unity that would remain an impotent abstraction over and against the differentiated structures of modern social structure and culture. Utopians who evoke such ideals will promote, at best, separatist countercultures or, at worst, new forms of authoritarianism that cannot cope with the ambivalences needed for participation in modern societies.

2.2 On the Claim that General Education can be Guided by "A Return to the Humanistic Ideal of the Cultivation and Reflection on Value Judgments"

Whereas some traditionalists would accept the above argument that it is impossible to regain the unity of "cosmos," others would nonetheless assert that a recovery of our competences for judging -- as against technical calculations -- would be a sufficient goal for general education. In focusing upon "judgment," the end sought would be the cultivation of judgment that passes beyond modern "private" morality and taste and recovers the traditions that reunify the individual and the community. That is, the exercise of judgment re-establishes an intersubjective unity of subject and object in the act of expressing the "common sense" of a human situation, or text. As Hans-George Gadamer's Truth and Method suggests, it was denigration of common sense by the subjectivizations of modern methodological skepticism, and Kantian aesthetics, that severed our "subjective experience" from an intersubjective participation in events of understanding. The crisis in modern culture derives, on this account, from the elevation of method and its consequent subjectivizing of "practical knowledge" (such as linguistic communication and aesthetic participations essential for access to tradition and moral judgements).

Most professionalization processes do not recognize this crisis of western culture and effectively end in some form of abstract relativism. Thus, modern social existence is dependent upon technical information that excludes traditions in which ethical and aesthetic values are shared and forces all people to act upon knowledge that is not related to the whole. As a result, the more technically rational modern social life becomes, the less individual rational judgment (as the recognition of the general in the particular situation) is exercised and cultivated. Expanding on the socio-technical construction of contemporary societies will show how "judgment" fails to provide a sufficient recovery of humanistic culture. This perspective is generalized historically by Niklas Luhmann, Germany's leading systems theorist, who suggests that pre-modern societies were able to use "reality as rationality control" but that we must use "rationality as reality control!" Where the normative constraints of everyday social reality in traditional societies were sufficient for integrating future possibilities, modern societies have become so complex that we are now dependent upon cognitive constructs as the only means by which we can secure our futures. Where traditional society could maintain a two-dimensional time frame of mythic eternity and the illusory changing present, we cannot. For example, without predictive knowledge about environmental resource and social consumption rates, the current "environmental crises" could not be integrated in future planning schemes. In modernity, theoretical constructions are the strategic foundation for all social processes. Post-industrial society is based not on machine technology, but upon intellectual technologies for the planning innovations that enable us to manage "organized-complexity." The new decisionmaking logics, such as systems theory and game theory, are essential for intervening into complex social systems because Jay Forrester has shown they are beyond our intuitive judgements based upon direct casual relations. Codification of theoretical-technical knoweldge is the pivot upon which future stability of societies and the environment swings; only if this is done adequately will we be able to manage the rapid change of pace and scale in the contemporary world. Such is the case for critical thinking as viewed from the perspective of contemporary positivism.

It is precisely this positivistic concept of rationality and modernity which must be challenged by a more comprehensive conception of critical thinking. A theory of judgment, or hermeneutic understanding, cannot challenge the silent power manipulations of contemporary "intellectual technologies."

2.3 The Dimension Missed by Classical and Humanistic Philosophies of General Education: Knowledge and Power

Both the classical and humanist traditions have stressed that judgment is immanent to the internal relations of traditions and/or sociocultural worlds, and can only be *practiced* -- *not taught*. That the coherence of contemporary culture does not provide for immanent relations between the good, the true, and the beautiful makes the recovery of "judgment" even more problematic. Therefore, an understanding of the tradition and the cultivation of judgment necessary for modern professional responsibility are not sufficient conditions for wise citizen participation. The contemporary world context presents the citizens of all nations with conflicts that require not only the knowledge of traditions, but also the competence to enter into rational *discourse* about information, as well as cultural prejudices and ideologies. In short, citizens of modern societies need both the competence for technical learning and for "practical" learning too. But most difficult to express is how these competences can be presented as having a unity within modern social worlds where the silent power constraints of intellectual technologies are continuously asserted.

The key to a unitary reflexive notion of human learning is the "double-structure" of communicative action. In everyday life we naively assume the validity of scientific (cognitive) and interactional (practical) claims and in doing so achieve the consensual basis upon which meaningful speech and action can occur. In every act of double-structured communication, we simultaneously represent objects, express personal intentions and understand interpersonal expectations -- while also correlating these predicative and interactive levels. The reflexivity of communicative acts derives from this capacity to simultaneously maintain and differentiate interactive performances from propositional claims, while also correlating them comprehensibly.

Therefore, our reflexive competences are inherent in the social consensus, the common form of life, that is shared by socialized interactors. This social consensus makes possible discourse about "practical truth" as well as cognitive claims about objects of nature. Our capacity for questioning the modalities of appearance (external nature), illegitimate social expectations (the normativity of society) and false self-representations (the subjectivity of "internal" nature), or the incomprehensibility of semantic content (intersubjectivity of language) presupposes the inbuilt reflexive universals of a common form of life. That is, the reflexive potentials inherent in a social consensus make possible not only discourse about theoretical claims (e.g., science), but also practical discourse. Practical discourse is activated again and again as offenses against norms or social conflicts emerge and are contested and challenged by individuals or movements for social change.

"Truth" cannot be restricted to the single sphere of cognitive reference to objects because it is interconnected with our pragmatic capacities to simultaneously maintain and differentiate normative interactive claims from propositional claims. Our communicative competence for truth testing extends to the "practical truth" of moral-ethical claims too. The meaning of "practical truth" is revealed when we realize the reflexiveness of what is usually reified as "sentiment" or "custom." Understanding norms is insight into mutual recognitions of ego and alter in that it establishes reciprocal normative expectations. This is a double relation -- I interpret my needs ("internal nature") from a point of view of mutually compatible needs and interests. Logically, the intersubjective reference is to everybody concerned as a potential alter in discourse -- a universal moment of reciprocity in the normative relatedness of mutual recognition.

In this way, every common form of life has a counter-factual rational consensual core which is taken for granted in communicative interaction. Disagreements are then not only differences in subjective opinions, but disagreements about obligations and rights too. If these disagreements are intense, they break the bonds of tacit agreement and release a struggle for recognition which will proceed according to the normative standards for conflict resolution in the context of the situation.

3. General Education as the Institutionalization of Discourse

The following series of propositions define what I argue is a minimalist philosophy of general education:

3.1 Through the establishment of a general education process, a faculty anticipates the end of general education at the level of its own practice as a community of inquiry. Through the interlocking of courses and the ongoing discussions about how to integrate a general education program, a faculty is learning to learn about how academic fields, methods, traditions, values, etc., come together to contribute to the communicative skills, historical and socio-cultural insights and critical thinking.

3.2 Rational discourse is the contextually released conditional reflection upon the possibility of "truth" (both theoretical and practical) and insofar as this is true, it is the mode of human existence which is unconditioned and "always already" essential for participation in the human world. (From this perspective, the modern elevation of homo farber to an anthropological and epistemological principle is challenged by a more fundamental anthropology of knowledge constitution.) Learning to learn is therefore both the process and the end of general education.

3.3 A general education organized toward the above ends anticipates a rational and free society in that competent citizens will be able to learn to learn how to enter into discourse about both information and the ends of social-personal development. Competence in learning to learn to engage in rational discourse is therefore the societal means of moving from pseudo-dependence to greater social and personal autonomy.

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"WAYS OF KNOWING": A TEAM-TAUGHT INTERDISCIPLINARY PROGRAM

Howard B. Tinberg

> Learning is much more seeking than getting,
> much more experience than information. (Mason 149)

I would like to propose a "model" for an interdisciplinary course, but even as I use that word "model" I am compelled to qualify it. The course that I am about to describe was problematic from beginning to end, subject to great stress and strain from within and without. It did not stand above change, but rather was regularly adjusted and modulated. Conflict and negotiation were significant events throughout. All this may seem peculiar to most of us, who are accustomed to cast our courses in the stone of our syllabi. But the point I wish to make is that this course is a "model" _because_ of the stresses, because of the on-going negotiation. I am saying that learning in this course was directly tied to the ebb and flow of retrenchment and advance. Moreover, what we learned--teachers and students--was tied to how we learned.

For the past two years, I and four colleagues at Boston University's College of Basic Studies have tried to devise and implement an interdisciplinary program that would mesh with the college's core curriculum. Historically, the college has attempted to provide students with a general education while at the same time encouraging them to experience disciplines in depth. It has been a difficult task. General education casts its net wide while specialization plumbs the depths. The question before us is, "How may we contrive a program of study that will touch all the important bases and yet remain meaningful?"

Our college's modified team-teaching approach has always provided us with the potential to bridge general and specialized knowledge. Students are randomly assigned to a team of faculty representing the various divisions within the college. Each of my colleagues is a specialist while at the same time committed to the connectedness of general studies. Through regular dialogue--made easier in that we share a suite of offices--we have opportunity to discuss what we are teaching and, in an ad-hoc way, prepare interdisciplinary projects.

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I say "ad-hoc" because there is an institutional resistance that makes more deliberate interdisciplinary work difficult to achieve. Tension has developed as a result of divided loyalties: Am I a rhetorician and a member of the rhetoric division before all? Or am I a generalist and a member of a team committed to dialogue across the curriculum? The team is itself pulled apart in that my science, social science and psychology colleagues, teaching so-called "core-courses," must stay faithful to their departmental syllabi, while my humanities colleague and I, whose departments are less centralized, have the freedom to shape our own syllabi, within the consensus established within our own divisions. In short, the curriculum has become a kind of battle ground between the forces of specialized and general education, between the so-called "core" and those courses that style themselves as bridges between fields of knowledge.

It was in this context that I and my colleagues set out to bring the potential of team-teaching to fruition and to give to the undergraduate's curricular experience a connectedness.

As a first step, we requested and were granted the opportunity to stay together for a second year, the customary life of a team being only one year. We were getting to know each other and could build on that first year's worth of dialogue. The first year was taken up with familiarizing ourselves with each other's methodology and personalities. We believed that in order for a collaborative effort to succeed a period of more than a year was needed.

Second, we sought a model for classroom instruction that would empower our students, who, it ought to be said, entered their classrooms with white flag raised, trained to be the passive recipient of knowledge not the engaged and active pursuer of knowledge. We sought a model that would give our students a stake in their own learning and allow them to engage in what Michael Oakeshott has called the "conversation of mankind" (Oakeshott). We envisioned an environment in which collaboration and not competition guided inquiry and in which negotiation, not tyranny, shaped knowledge. We began to hypothesize that knowledge was socially constructed, arrived at through consensus, rather than privileged. We decided, along with Kenneth Bruffee, that "what our student must learn is how human beings continually negotiated and renegotiated the frames of references which fence in and make meaningful what, for the time being, we agree to call knowledge" (Bruffee 183). Thus, our students would attempt to solve problems through group work.

Effectiveness in group work required considerable training on the part of our students. They were simply not prepared to work collaboratively. For example, in the long struggle to train my students to become helpful readers of their peers' writing, I regularly confronted a hoarding of ideas and a defiant belief that no student could teach another student "how to write." They had been conditioned to see writing as a solitary and necessarily painful act and could not conceive, in the setting of a university classroom, that the persons sitting next to them would be willing and able to assist as good listeners. Retraining in the benefits of a socialized writing classroom was a painful but necessary process.

It occurred to us, as we engaged in our own collaborative group work, that we were all of us concerned with imparting to our students how we know the things we know. Our theme, naturally enough, became "Ways of Knowing." In our own classrooms and in shared classrooms, we attempted to demonstrate the ways by which our particular disciplines frame a response to a text. In one session, attended by all five of the team`s faculty and all our students, perspectives were offered on the film version of "The Lord of the Flies," a grim tale of savagery in innocence. As you may recall, in the narrative school boys are stranded on an island after their plane crashes and they must learn to survive in this wild environment. The film opens with snapshots of ominous weaponry while, in the background, a hymn is being sung by school children.

The film raises so many concerns that responding to it from a variety of perspectives seemed quite natural and, I believe, urgent. The psychologist on our team saw the film as an externalization of the struggle within the individual psyche between impulsive forces and the constraints of conscience and society; on this island the id is given free play until play becomes murder. Our social scientist described the making of the boys' savage society, specifically, the apportioning of power, the division of labor, and the establishment of class stratification. Our science faculty member focused on the implication of a machineless society (as this island was) and the hopes and fears that man attaches to his machines. He both craves and despise machines, believing that they lead to a better world and yet fearing they may take him from his natural state. Looming large of course is the message offered from the opening snapshots of missles and planes that crash: that technology can come back to haunt its creator. Our humanities representative spoke of the film as text, specifically, the ironic structure created by the recurrent chanting of the school-boy hymn in a savage wilderness. And, as for me, I was struck by the power of the word to structure this wild world, a power evident in the telling of the myth of the beast (actually the corpse of a parachutist). Here, as in oral cultures, telling stories is a powerful, shaping act.

As I describe such perspective-sharing sessions, I am struck by the conundrum that those of us committed to mediating between generalized and specialized knowledge face. In going from perspective to perspective, we intended to show how all fields can meet in a single text and a single classroom, that dialogue across the curriculum was possible. But as we took our turns, were we really engaged in a dialogue or merely a series of specialized readings? Even as I describe these sessions, I have a sense of pieces; we were responding to the text but perhaps not to each other.

We encouraged our students to make the connections themselves, principally through their journals. One journal was used for all five courses. In it the student was to record the echoes and reverberations bouncing among his classes. I remember coming across a brief, spare entry that I found exciting. The student wrote, "I`ve noticed that the word `paradigm' is coming up in several of my courses. I had not even heard of the word before coming here. I guess there _are_ connections between my classes." Did the student know the implications of that word? Probably not. But from small beginnings may come large discoveries. Perhaps this student will come to learn the way paradigms operate within all fields (Kuhn).

I am committed to dialogue within the university. I believe that faculty need to become a community of teachers and scholars, engaged in an on-going conversation. I believe that students need to develop a sense of their own community, actively seeking knowledge through dialogue and discussion. And we all--students and teachers--need to see ourselves as partaking in a larger conversation, wherein we all learn. It seems to me that such conversation is being undermined daily by a model that has as its central tenet, competitiveness is all. Our students are espousing these very same values. What I and my colleagues have tried to do is work counter to the insular mind-set of that competitive model. We say to our students and to each other, Let us talk, let us "agree to disagree," but let us talk. A course in "Ways of Knowing" can aspire no higher.

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THE INVERTED PYRAMID: AN INTERDISCIPLINARY UPPER DIVISION ARTS AND SCIENCES PROGRAM

Carolyn B. Ware, Ph.D. and Timothy McLaughlin, Ph.D.

Planning and Development: Ware

Development of the proposed B.S. in Applied Arts and Sciences and B.P.S. in Fashion Merchandising curricula at Cazenovia College is a thousand and one tales of two cultures. Our task is simultaneously to move a small institution through the transition from a two year college with a particular culture to a four year institution with somewhat different attributes while developing and implementing a blooming curricular culture. The proposed curricula synthesize diverse disciplinary elements and integrate them with the realities of the workplace through experiential learning. Arguably, either of these efforts might be more manageable if not complicated by the other; however, the two are, in fact, inextricably linked at Cazenovia.

Our focus today is on the B.S. in Applied Arts and Sciences, but development of the B.P.S. in Fashion Merchandising has proceeded concurrently. We expect these two curricular models to form the basis for any future baccalaureate development; both curricula share elements of the Arts and Sciences General Core and Professional Cores which Dr. McLaughlin will present. My role is to discuss the planning process.

The Primordial Soup: Chronology and the Culture of Cazenovia College.

Cazenovia College is old (founded 1824), small (FTE 800), with limited resources (briefly closed in 1974 in a fiscal crisis), private and independent (originally, however, a Methodist Seminary), and career-oriented (with a faculty strongly committed to the liberal arts). At this time, the College is remarkably successful. Applications outnumber enrollments 4 to 1, and the College enjoys a substantial annual operating surplus. Cazenovia is deeply committed to serving all students, including those who come poorly prepared for college level work, and we take particular pride in our Learning Center.

The stable enrollment and fiscal state of the College is a relatively recent phenomenon. In 1981-82, the President and the Board of Trustees analyzed demographic trends and considered two enrollment strategies, coeducation and baccalaureate degrees. The decision was reached to proceed with the transition from woman's college to coeducational college first, tabling the baccalaureate issue for the future. In the fall of 1983, the College accepted men into the freshman class for the first time since 1942. Enrollments have since risen to current maximum levels with a consequent significant increase in revenues. Coeducation has been an outstanding success, and men have been assimilated into the Cazenovia culture.

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Attention then returned to the baccalaureate potential. The Board of Trustees voted in May, 1985 to request authority from the New York State Board of Regents to award baccalaureate degrees. In New York, the State Education Department and the Board of Regents control whether or not a college may offer a particular curriculum or a given level of degree. The College proposes and SED disposes, so the Board of Trustees decision was only the initial step in the process.

In September, 1985 Committees were appointed to develop each curriculum and consultants were chosen to assist each Committee. The Baccalaureate Development Committee for the Applied Arts and Sciences curriculum is made up of all full time and part time faculty members who have either a doctoral degree or an appropriate professional terminal masters degree (MSW, MFA). The Committee worked both as a whole and in small subcommittees to produce a program proposal which was submitted to the State Education Department in January, 1986. The program proposal and supporting documents were reviewed by external consultants chosen by SED; approval by the SED consultant is necessary prior to scheduling of a site visit by an Evaluation Team. By the summer of 1986 both program proposals had cleared the "paper review", but scheduling problems resulted in three postponements of the site visit. As this paper is being written, we are preparing for the SED Evaluation Team visit in April 6, 7 and 8.

During the 1986-87 academic year, Committee members have been engaged in development of syllabi for the proposed courses. In addition, Advisory Boards of local corporate and governmental leaders have been appointed. These Board members have been enthusiastic and productive in critiquing the curriculum and course syllabi. The 1987-88 year will be dedicated to course and faculty development. If all goes well, students may be admitted into the junior year in the fall of 1988.

The Culture Medium and Curricular Growth.

Of course, all seldom goes entirely according to plan. Curriculum planning occurs in a medium which offers constraints as well as nutrients. The actual design of the Applied Arts and Sciences curriculum reflects various influences; among them are the needs of society, the needs of Cazenovia College students, the requirements of the bureaucracy, regional corporate and business needs, the needs and interests of current faculty, the constraints of available resources, and the cultural context of the College itself.

The needs of society have been represented vigorously in several recent publications prepared by nationally acknowledged authorities such as Involvement in Learning (National Institutes of Education), Integrity in the College Curriculum (Association of American Colleges), To Reclaim a Legacy (Bennett, National Endowment for the Humanities), and A Nation at Risk (The National Commission on Excellence in Education, U.S.Dept. of Education). Themes which recur in these documents include the importance of active involvement of the learner, failure of undergraduate education to assure that graduates actually can demonstrate the alleged benefits of traditional liberal arts education in the world beyond the campus, the critical nature of communication skills, and erosion of attention to values. Examination of these documents helped guide the Committee to selection of the primary goals of the curriculum. These goals are competency in Problem Solving, Communications, Valuing, and Social

Interaction.

The culture of Cazenovia College includes a deep investment in the quality of the associate degree programs, most of which are career-oriented. The success of these programs is reflected both in the strength of their enrollments and in the success of their graduates in obtaining employment and pursuing further education. In leading the College to the baccalaureate level of education, we have no inclination to reject the associate degree programs which have been the academic focus of the College. Rather, the associate degree programs are the foundation on which the upper division coursework is constructed.

Students in the associate degree programs, and particularly in Associate in Applied Sciences curricula, need opportunities to continue their educations at baccalaureate level. Transfer into more traditional four year colleges is sometimes complicated by professional courses which do not provide credit toward the baccalaureate degree and a lack of liberal arts or general education requirements which result in undertaking further lower division liberal arts coursework when the student's academic development properly is at upper division level. These factors have led to design of the proposed curriula as 2 plus 2 programs, with a formal admissions process at entrance to the junior year and specification of certain prerequisite courses to be completed prior to admission to the junior year.

The State Education Department protocols also set limits. SED requires documentation of the need for a new program; this does not mean the needs of the College, it means the needs of New York State for such a program and implies demonstration that the need is not being met by an existing curriculum. In a state with over 200 baccalaureate level institutions including in the central New York area giants such as Cornell, Syracuse Unniversity, and the University of Rochester as well as small liberal arts colleges such as Colgate, Hamilton, Ithaca, Lemoyne, and Wells to mention only a few, and not forgetting state university units at Oswego, Cortland, and the State University of New York at Binghamton, this is no small challenge. We believe that the Applied Arts and Sciences curriculum is innovative, distinctive, and meets the needs of a population of students which are not now being met by existing curricula.

Believing that we have a good idea is one thing, demonstrating it is another. In January, 1986 we conducted a survey of 4,076 small and medium sized employers in the upstate New York area. A total of 500 responses were received. Employers were asked to rate a series of characteristics as to their relative importance in a newly hired, entry level employee. We were pleased but not greatly surprised to find that communications skills are highly rated. However, "the capacity to make moral judgements" was rated as of highest priority by 25% of the respondents, very important by 40%, and desirable by 25%; this strong support for the importance of valuing was much more unexpected. Items such as "capacity for critical thinking", "analytical ability", "problem solving ability", and "creativiy, ability to innovate" also received consistent high approval. In contrast such skills as computer programming, understanding the corporate environment, and data processing ability were rated as of only moderate importance. Our conviction that social interaction skills are important was reinforced by the employer ratings. The item "positive attitude toward the job" attracted the highest rating of all, followed closely by "positive attitude toward coworkers" and "ability to be a good team player". Increased autonomy and independence is, however, also highly valued by these respondents. The items, "ability to work independently" and and "capacity for persistence" were rated as highest priority, very important, or desirable on almost all of the returned surveys.

Our confidence in the validity of the survey results has been increased by comments from members of the local business community apppointed to Advisory Boards. These business and governmental representatives have approved the general thrust of the curricula with reassuring enthusiasm while offering specific suggestions for increasing the effectiveness of the experience. We expect them to assist the College in creating internship opportunities for the students and in program review. Advisory Board members have supported our belief that the programs being proposed are, indeed, innovative and responsive to the needs of employers in the region.

The interests of faculty members are reflected in the emphasis on both the arts and sciences competencies and the application of those competencies. In a College which has vigorous career-oriented associate degree programs as well as a significant number of faculty members dedicated to the liberal arts, such an amalgam is a natural consequence of faculty interests. The small faculty (36 full time) is divided among many disciplines and organized into three Centers (Art and Design Studies, Life Studies, Management Studies) rather than into disciplinary departments. Development of an interdisciplinary curriculum is perhaps more feasible in such a setting than in a more traditionally organized faculty. Nevertheless, tensions have been experienced between the requirement of the curriculum for interdisciplinary thinking and the pull of the individual discipline. Some faculty members entered into the curriculum development process with the hope and expectaton that , now, they would at last be able to teach that dream course to highly selected juniors and seniors who would be "their" students. But this curriculum has no major sequence of courses in the traditional sense, and almost all courses are interdisciplinary in some sense. Many courses will be team taught and will "belong" to no single faculty member.

In the first weeks of curriculum development (October, 1985), the external consultant urgently recommended that a Program Director be named who would, among other things, be "an evangelist" for the program. President Schneeweiss agreed, but we had no time to conduct the usual search. It was imperative that exactly the right person be found yesterday, if possible, since we had a January deadline for completion of the proposal. Providence was certainly with us, for an excellent candidate was already among us as a part time faculty member appointed, serendipitously, to cover courses for someone on sabbatical leave. Dr. Timothy McLaughlin was serving on the Development Committee and had already been assigned the task of actually drafting the program proposal. His participation had been productive and well received. Tim has a fundamentally irreplaceable requirement for this responsibility: he has an interdisciplinary mind. His doctoral thesis integrated African studies with political science, geopolitics, history, anthropology, and a touch of economics. Tim assumed leadership of the Committee, including quiet evangelism with faculty members who were experiencing some difficulty in reconciling their hopes and aspirations with the form the curriculum was evolving.

While our concept of the curriculum was taking shape, a subcommittee investigated the possible existence of similar curricula in other institutions. We found that the program at Alverno College in Milwaukee, Wis. seemed most relevant to our concern for competency-based education. A team of four Committee members was dispatched to Alverno for a workshop, returning with cartons of material and a positive sense of validation for our plans. The Cazenovia College program is significantly different in detail from Alverno, yet it was reassuring to find another college which has made a major commitment to similar goals. The success of the Alverno approach (in a traditional four year liberal arts college) was also reassuring to some faculty members who were having difficulty with the instructional design necessities.

While one subcommittee was comparing other collegiate models, another group struggled with questions of outcomes assessment. We recognized that, particularly with a curriculum which is not only innovative but may be unique, we had to find a mechanism to assure the students, ourselves, and the external publics that the outcomes were as expected. The American College Testing service instrument, the College Outcomes Measurement Program (long form) offered a remarkably good fit for our purposes. Although we may well develop our own measures over time, the advantages provided by a standardized, nationally normed instrument for outcomes measurement in the initial implementation phase of these new curricula seemed compelling. As a result, we have adopted terminology compatible with the ACT COMP to identify the curriculum competencies: Problem-Solving, Communications, and Valuing for all students. Each student must also choose one of three specializations, Using the Arts, Functioning in Social Institutions, and Using Science and Technology. The final competency, Social Interaction, is not addressed by the ACT COMP; assessment strategies for this competecy remain to be developed.

One final constraint should be noted. In a small college with a recent history of fiscal crisis, availability of resources is a continuing concern. Cazenovia College could not mount a traditional liberal arts baccalaureate curriculum with several major programs of study even if the faculty demanded it or the bureaucracy permitted it; we could not have afforded to staff a comprehensive program. The curricula which are being proposed share a large required core component which is interdisciplinary and can be offered by our present faculty with the addition of only three full time faculty lines in key content areas. The spector of bureaucratic and political constraints has been useful in reinforcing commitment to the interdisciplinary ideal.

While acknowledging the real tensions generated by the process of transforming faculty members with disparate backgrounds into a cohesive interdisciplinary team, we must emphasize the essential and critical nature of faculty and administrative involvement in the curriculum development process. Most faculty members are eager to see baccalaureate programming implemented at Cazenovia College. Members of the Committees have worked intensely, enthusiastically, and with dedication, often helping one another over the occasional rough spot.

This remarkable faculty has proposed a curriculum which reflects not what they are teaching now, but rather, a vision of what ought to be taught. As a consequence, parts of the proposed program reach beyond the present qualifications of the faculty. To assist in faculty development, workshops have been offered with specialists in the teaching of values, critical thinking, communications, and instructional design. Faculty members have been sent to training programs on assessment and valuing. In addition, consultants have been brought in to work with individual faculty members on specific course syllabi. For the coming year, workshops are planned on valuing, interdisciplinary team teaching, assessment, and social interaction. We have recently been awarded a Planning Grant by the National Endowment for the Humanities for planning and development of courses related to the valuing competency.

In a context formed by the Cazenovia College culture, by societal concerns, bureaucratic necessities, political and fiscal realities, and by the interests and vision of faculty and administration, the proposed interdisciplinary baccalaureate curricula have evolved over the past 670 days and nights. Ideas, effort, external consultation, workshops, leadership, references and source material, community leaders, comparisons with other colleges, and commitment have been components in the medium from which these curricula have evolved. In the next 365 days we hope to bring this ferment to fruition for the first junior class at Cazenovia College.

The Inverted Pyramid as a Programmatic Approach: McLaughlin

My task is to explain and elaborate on the nature of the four year culture we seek to create at Cazenovia College. Briefly, our new program is characterized as applied because the curriculum blends arts and sciences coursework with professional experiences and study appropriate to the student's academic and career orientation. As you will see, we believe important theoretical constructs validate this approach. More importantly, the needs of our own two-year graduates will be better served in an upper division program built explicitly on the base of their prior educational experiences.

The Cazenovia faculty responded to both student needs and theoretical concerns with a tightly structured and interrelated curriculum design. We identified the capacity for critical thinking as the ultimate overriding goal of the curriculum. The program design acknowledges the necessity of an interactive facet of the curriculum which consciously connects arts and sciences learning with professional activities. Given the experimental nature of our approach, we have also sought to incorporate strong assessment and feedback mechanisms on both individual and programmatic levels. These concerns have led us to build outcomes measurement into the curriculum in a fundmental way.

Educational Theory and the Inverted Pyramid

Traditional baccalaureate programs usually assume that their students are best served by a curriculum pattern that procedes from a general knowledge base (core curriculum) taken in the freshman and sophomore years towards study of a more narrowly defined major in the upper division. This progression from breadth of study towards increasing specialization resembles a pyramid, with the narrow apex of specialized study built onto the broader base of general education requirements.

We do not believe that the assumptions underlying this traditional pyramid are valid for the majority of our students. Graduates from career-oriented Associate in Applied Science programs at Cazenovia College and similar programs elsewhere already have mastered specific professional knowledge and abilities that call for further development at the upper division level. However, these students are, as a rule, only on the verge of developing their capacity for theoretical and abstract learning. The difficulties of their transition to a baccalaureate institution where a general education base in the liberal arts is the focus of lower division coursework are readily apparent.

When admitted to these traditional programs, our students must make an awkward transition into a new educational milieu that often includes the necessity of taking substantial lower division coursework in the liberal arts. Beyond student resentment at what appears to them as an educational regression, the continuation of freshman and sophomore level courses neglects the appropriate development of the students' cognitive abilities. Making a gradual connection between previously assimilated concrete knowledge and abstract learning, rather than imposing an arbitrary set of course requirements, better addresses the student's needs in the move from a two-year to a four-year academic culture. The difficulty of making this transition from the career program to the baccalaureate institution has in fact been identified by the Board of Regents as a critical issue facing higher education in New York State.

Our proposed curriculum in the Applied Arts and Sciences Program represents an inverted pyramid based on learning theories which suggest that for many students learning proceeds most naturally from the specific to the general, from mastery of specific skills to command of theoretical knowledge. Theoretical underpinnings for the inverted pyramid derive from Whitehead, Perry, Dewey, Piaget, Knowles, and Bandura among others. Whitehead identifies three broad stages of learning, "romance, precision, and generalization", and suggests that students after an initial stage of enthusiasm for a topic go through a period of concern over "qualitative and structural details" prior to recognizing the need for generalization. Research by William G. Perry on students' cognitive abilities indicates their learning receptiveness procedes from the "relatively simple to the more complex", from the simple assimilation of the "right answer" towards recognition of a "multiplicity" of possible solutions and eventually into a "relativistic" stance wherein ideas are viewed as "contextual, relativistic, and better or worse, rather than right or wrong". Dewey, Whitehead and their successors emphasize the necessity of linking experiential and liberal arts education, to eliminate what Dewey attacked as the "split between knowledge and action, between theory and practice, which now affects both education and society so seriously and harmfully". These are the primary concerns addressed by adoption of the inverted pyramid.

The Inverted Pyramid evolved to meet the needs of this student population and from concern over what we perceived as a serious gap between experientil and liberal arts learning. By inverting the educational pyramid, the growth of liberal arts competencies and an arts and sciences knowledge base can be sustained while simultaneously fostering professional skills developed during the student's initial two years at the college.

Overall Objectives of the Applied Arts and Sciences Program

Enhanced capacity for critical thinking is the ultimate goal of the Applied Arts and Sciences curriculum. We perceive a major task for Cazenovia students in the freshman and sophomore years to be increasing confidence in themselves; in the upper division program, we anticipate that they will mature as autonomous learners. Throughout the curriculum, coursework will be designed to facilitate the student's attainment of the four fundamental competencies: problem-solving, valuing, communications, and social interaction.

The curriculum is organized into three components:

1. Arts and Sciences General Core Courses
2. Arts and Sciences Professional Core Courses
3. Specializations

Components of the Curriculum

The courses proposed in each of these three components and their relationships to the curriculum competencies are listed in the supplementary material. Our primary curricular concern was to facilitate development of essential learning competencies in a manner whereby their value was apparent to students who possess a strongly career-oriented outlook. Although some courses have an evident focus on one or another of the competencies, most courses address several of them simultaneously. Students practice these competencies throughout their educational experiences.

General Arts and Sciences core: This sequence of courses is taken by students in all baccalaureate programs to develop their command of the arts and sciences curriculum competencies. These courses are Communications in the Modern World: Forms and Techniques; Communications in the Modern World: Concepts and Theories; Reflections on the Human Experience: Valuing in the Modern World; Reflections on the Human Experience: Philosophy and Logic; Methods of Inquiry; Senior Seminar; Senior Project. The general core component procedes from introducing the student to specific skills and knowledge within the learning competencies to working towards the eventual goal of independent and self-motivated application of these abilities by each student. The capstone experience of the general core curriculum is the Senior Seminar. In this course, students organize and present a professional conference, reporting the results of senior projects conducted in the previous term to faculty, fellow students, advisory board members, and guests.

Professional core: This curricular component provides students with an experiential base within their chosen profession. Coursework includes Commitment and Choice; Human Relations and Organizational Behavior; Ethical Issues in Organizations; Field Experience and Bridge Seminar; and Independent Study. These courses emphasize application of the curriculum competencies in the professional environment. Commitment and Choice functions as an introduction to issues related to valuing and decision making and also as the mechanism for orienting students to the curriculum. The intensive fieldwork experience is a primary locus for practice and assessment of the competencies. Professional core courses taken prior to this internship experience focus on understanding institutional values and human behavior within organizational structures in order to maximize benefits. The student will undertake, as the culmination of this curricular component, an independent study project focussing on a problem or aspect of his or her profession identified during the field experience.

Specializations: Students will select one of three sequences of arts and sciences coursework that provide an increased knowledge base pertinent to their academic and professional needs. Performance in these three content-oriented categories will be evaluated with the ACT COMP instrument.

1.) Functioning in Social Institutions: analysis of those activities and institutions that form the social aspects of a culture, i.e. governmental and economic systems, religious and family institutions, volunteer and recreational organizations, ethnic and cultural groups;

2.) Using Science and Technology: analysis of those activities and products that form the scientific and technical aspects of a culture, i.e. transportation, energy use, health care, and national defense; and

3.) Using the Arts: analysis of those activities and products which form the artistic aspects of a culture, i.e. graphic art, music, literature, drama, and dance.

These Specializations will provide further arts and sciences course preparation suitable to the student's chosen career. Students undertaking the Functioning in Social Institutions specialization are likely to be preparing for careers in social work, child care, other human services disciplines, human resource management, and administrative functions within a variety of governmental agencies. Students taking the Using the Arts specialization would include those planning careers as illustrators, interior designers, graphic designers, lay-out artists, or anticipating other careers in the applied or fine arts. The Using Science and Technology specialization would be of interest to those students intent upon careers in technical and scientific journalism, management of technological enterprises, and appropriate governmental agencies.

Special Topics

Special Topics courses are a key element of the curriculum and are essential to maintaining the individualized nature of the Applied Arts and Sciences Program. There are two types of Special Topics courses:

1.) Professional Core Special Topics: These courses are either directly related to the student's professional interests or are arts and sciences topics. Course offerings may be structured as seminars, field experiences, studio work, or independent study depending on the number of students interested in a particular topic and their level of expertise.

2.) Selected and Special Topics within the Specializations: These courses are arts and sciences courses designed to explore in depth a topic drawn from the academic disciplines included in each of the three specializations. Course offerings will be redesigned each year depending on the interests and abilities of students and faculty.

Outcomes Assessment

The Applied Arts and Sciences program is committed to the concept of individual and programmatic outcomes assessment. For the student, assessment will begin with identification of Personal Educational Goals (PEGs). The PEGs will be based on diagnostic testing including administration of the ACT COMP and an evaluation of Social Interacton skills and will be established in consultation with a Faculty Mentor. A plan for academic work will be constructed to meet career needs and achieve targeted levels of arts and sciences competencies. Classroom assessment will evaluate progress in the curriculum competencies as well as mastery of the subject matter. The College has looked closely at the assessment-based curriculum of Alverno College and will continue to design assessment tools for use within the classroom and during the course of a student's participation in the Program.

Program evaluation will also start with the ACT COMP data obtained at entrance to the junior year. Scores from administration of this test at the end of the senior year, compared to scores on enrollment, will provide a measure of the degree of change in each of the competencies demonstrated by each student.

Social interaction is a competency not evaluated by ACT COMP. A challenge for the faculty during the coming year is development of strategies and methods for evaluating progress in this competency. Work supervisors will, inevitably, be involved in this assessment. Recognizing the need to strengthen this component of our assessment effort, the College has applied for a FIPSE grant to develop more sophisticated measurement tools of this competency.

As a further step to ensure that our curriculum remains consistent with the needs of our region, the Advisory Boards for each baccalaureate program will participate in program review and evaluation. The participants include bankers, personnel managers, government officials, politicians, and entrepreneurs from the Central New York region.

Our confidence in the design of the baccalaureate core currricula has most recently been reinforced by the publication of "College: The Undergraduate Experience in America". Ernest Boyer states that the general education core "should, we believe, extend vertically, from the freshman to the senior years....In a properly designed baccalaureate program, general education and specialized education will be joined."(p.101). He also admonishes that "the crucial step is to translate the purpose into practice." (p.92). We wholeheartedly agree and look forward with enthusiasm to mastering that challenge as we implement this curriculum in the years ahead.

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